Builder Top Vent
Direct Vent
Models: 33LDVT, 36LDVT
39LDVT, 43LDVT

INSTALLER/CONSUMER SAFETY INFORMATION

PLEASE READ THIS MANUAL BEFORE INSTALLING AND USING APPLIANCE

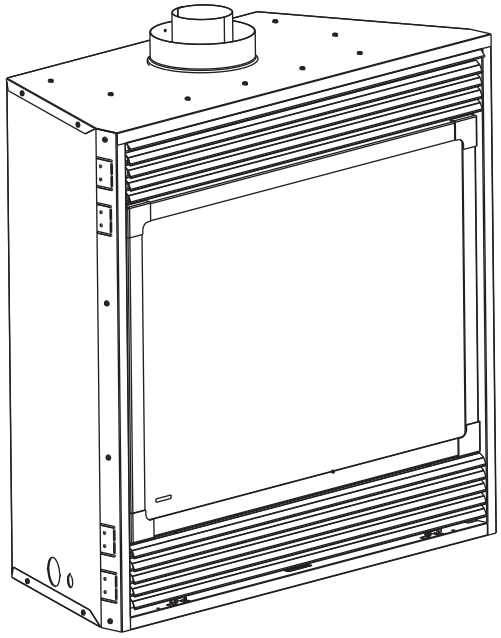
WARNING!
IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

FOR YOUR SAFETY
Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from your neighbor's phone. Follow the gas suppliers instructions.
- If you cannot reach your gas supplier call the fire department.

DO NOT STORE
OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.



Installation Instructions and Homeowner's Manual

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

10007852 1/13 Rev. 17

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PLEASE READ THE INSTALLATION & OPERATING INSTRUCTIONS BEFORE USING THIS APPLIANCE.
Thank you and congratulations on your purchase of a Vermont Castings Group fireplace.
IMPORTANT: Read all instructions and warnings carefully before starting installation.
Failure to follow these instructions may result in a possible fire hazard and will void the warranty.

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Installation & Operating Instructions

This gas fireplace should be installed by a qualified installer, preferably NFI or WETT (Canada) certified, in accordance with local building codes and with current CSA-B149.1 Installation codes for Gas Burning Appliances and Equipment. For USA Installations follow local codes and/or the current National Fuel Gas Code. ANSI Z223.1/NFPA 54.

FOR SAFE INSTALLATION AND OPERATION PLEASE NOTE THE FOLLOWING:

1. This fireplace gives off high temperatures and should be located out of high traffic areas and away from furniture and draperies.
2. Children and adults should be alerted to the hazards of the high surface temperatures of this fireplace and should stay away to avoid burns or ignition of clothing.
3. **CAUTION: Due to high glass surface temperature children should be carefully supervised when in the same room as fireplace.**

4. Under no circumstances should this fireplace be modified. Parts removed for servicing should be replaced prior to operating this fireplace again.
5. Installation and any repairs to this fireplace must be performed by a qualified installer, service agency or gas supplier. A professional service person should be contacted to inspect the fireplace annually. More frequent cleaning may be required due to excess lint and dust from carpeting, bedding material, etc.
6. Control compartments, burners and air passages in this fireplace should be kept clean and free of dust and lint. Make sure that the gas valve and pilot light are turned off before you attempt to clean this fireplace.
7. The venting system (chimney) of this fireplace should be checked at least once a year and if needed your venting system should be cleaned.
8. Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapour and liquids. This fireplace should not be used as a dry-ing rack for clothing, nor should Christmas stockings or decorations be hung on or around the fireplace.
9. Under no circumstances should any solid fuels (wood, coal, paper or cardboard etc.) be used in this fireplace.
10. The flow of combustion and ventilation air must not be obstructed in any way.
11. When the fireplace is installed directly on carpeting, vinyl tile or any combustible material other than wood, this fireplace must be installed on a metal or wood panel extending the full width and depth of the fireplace.
12. This fireplace requires adequate ventilation and combustion air to operate properly.
13. This fireplace must not be connected to a chimney flue serving a separate solid fuel burning fireplace.
14. When the fireplace is not in use it is recommended that the gas control valve be left in the **OFF** position.
15. These units have been approved for bedroom use.

33LDVT / 36LDVT / 39LDVT / 43LDVT
Certified To

ANSI Z21.88-2009 / CSA 2.33-2009
Vented Gas Fireplace Heaters

WARNING: Check with your electronics manufacturer before installing a television or other electronic device above this fireplace.

This appliance may be installed in an aftermarket permanently located, manufactured home or mobile home, where not prohibited by local codes.
This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.
The LDVT has been approved for mobile home installations.

IMPORTANT:
PLEASE REVIEW THE FOLLOWING CAREFULLY

Remove any plastic from from parts before turning the fireplace ON.

It is normal for fireplaces fabricated of steel to give off some expansion and/or contraction noises during the start up or cool down cycle. Similar noises are found with your furnace heat exchanger or car engine.

It is not unusual for your gas fireplace to give off some odor the first time it is burned. This is due to the curing of the paint and any undetected oil from the manufacturing process.

Please ensure that your room is well ventilated-open all windows.

It is recommended that you burn your fireplace for at least ten (10) hours the first time you use it. If the optional fan kit has been installed, place the fan switch in the “OFF” position during this time.

Proposition 65 Warning: Fuels used in gas, wood-burning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.
California Health & Safety Code Sec. 25249.6

Installation & Operating Instructions

Requirements for the Commonwealth of Massachusetts

All gas fitting and installation of this heater shall only be done by a licensed gas fitter or licensed plumber.

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontally vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

Approved Carbon Monoxide Detectors

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and ANSI/UL 2034 listed and IAS certified.

Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, **"GAS VENT DIRECTLY BELOW, KEEP CLEAR OF ALL OBSTRUCTIONS".**

Inspection

The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
- Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

MANUFACTURER REQUIREMENTS

Gas Equipment Venting System Provided

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

Gas Equipment Venting System NOT Provided

When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

Fireplace Dimensions

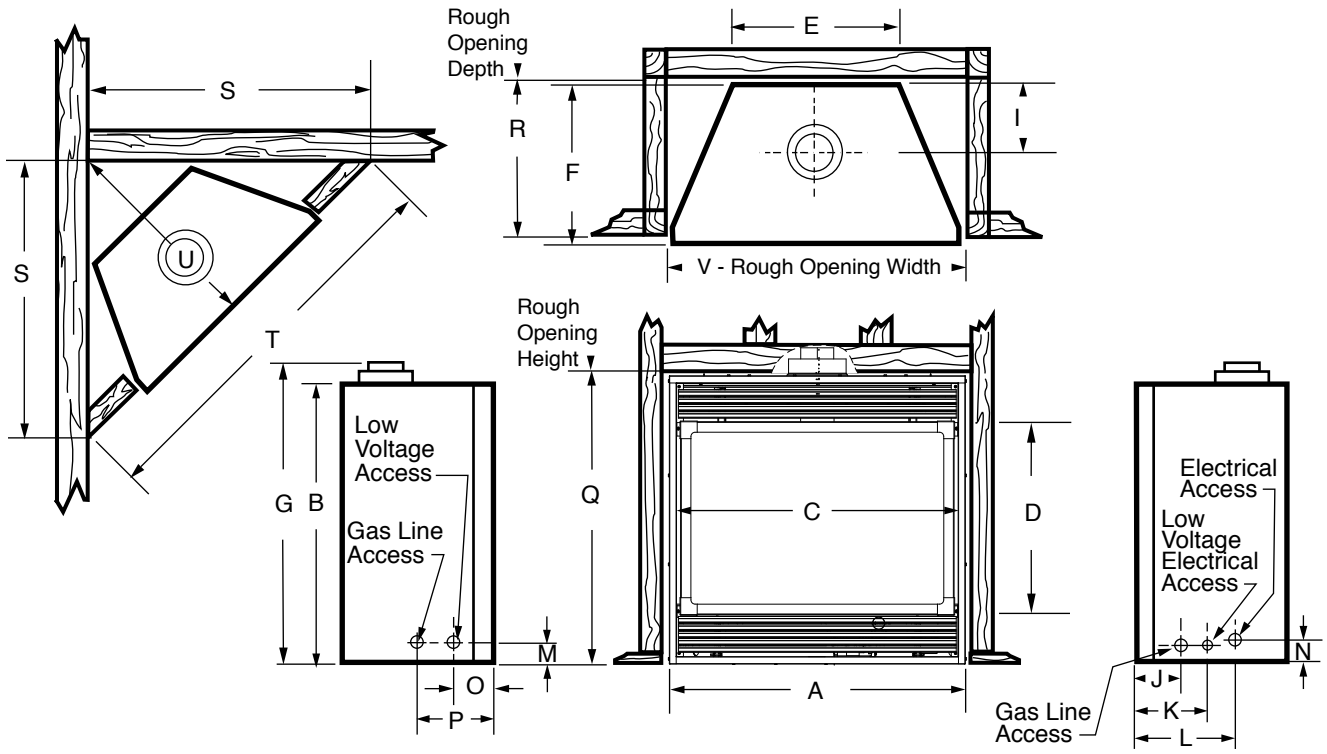


Fig. 1 Fireplace specifications and framing dimensions.

Ref.	33LDVT	36LDVT	39LDVT	43LDVT
A	33" (838 mm)	36" (914 mm)	39" (991 mm)	43" (1092 mm)
B	28⅞" (733 mm)	34¼" (870 mm)	34¼" (870 mm)	37" (940 mm)
C	31¼" (794 mm)	34¼" (870 mm)	37¼" (946 mm)	41¼" (1048 mm)
D	18⅜" (466 mm)	23" (584 mm)	23" (584 mm)	25¾" (654 mm)
E	22¾" (578 mm)	24" (610 mm)	27" (686 mm)	31" (788 mm)
F	14" (356 mm)	16" (406 mm)	16" (406 mm)	16" (406 mm)
G	31¾" (806 mm)	37" (939 mm)	37" (939 mm)	39¾" (1010 mm)
H	-- --	-- --	-- --	-- --
I	6" (152 mm)	6¾" (170 mm)	6¾" (170 mm)	6¾" (170 mm)
J	4⅝" (118 mm)	5⅝" (143 mm)	5⅝" (143 mm)	5⅝" (143 mm)
K	6⅜" (162 mm)	8" (203 mm)	8" (202 mm)	8" (203 mm)
L	8⅞" (225 mm)	11⅞" (302 mm)	11⅞" (302 mm)	11⅞" (302 mm)
M	2" (51 mm)	2" (51 mm)	2" (51 mm)	2" (51 mm)
N	3⅜" (86 mm)	3¼" (83 mm)	3¼" (83 mm)	3¼" (83 mm)
O	4⅝" (118 mm)	6¾" (172 mm)	6¾" (172 mm)	6¾" (172 mm)
P	6⅜" (162 mm)	9¼" (235 mm)	9¼" (235 mm)	9¼" (235 mm)
		Framing Dimensions		
Q	29⅝" (753 mm)	35" (889 mm)	35" (889 mm)	37¾" (959 mm)
R	14½" (368 mm)	16½" (419 mm)	16½" (419 mm)	16½" (419 mm)
S	35¾" (908 mm)	39¾" (1010 mm)	43⅛" (1095 mm)	44⅛" (1121 mm)
T	50½" (1238 mm)	55¼" (1403 mm)	60⅞" (1546 mm)	62⅜" (1584 mm)
U	25¼" (641 mm)	28⅛" (714 mm)	30⅞" (784 mm)	31¼" (794 mm)
V	33½" (851 mm)	36½" (927 mm)	39½" (1003 mm)	43½" (1105 mm)

Locating Your Fireplace

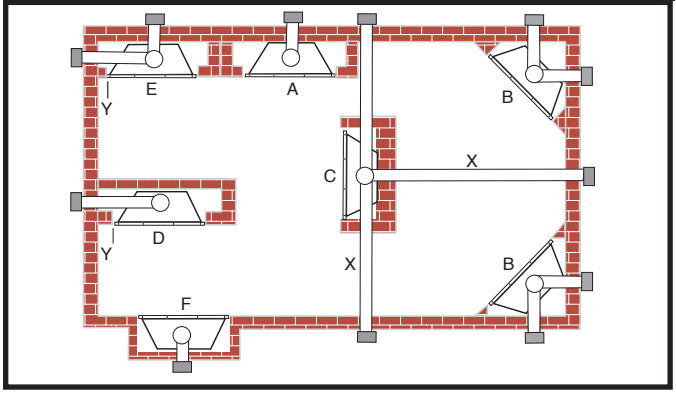


Fig. 2 Locate gas fireplace.

A - Flat on wall B - Cross corner C - **Island
D - *Room divider E - *Flat on wall corner F - Chase installation
Y - 6" minimum

Note (Fig. 2):

** Island (C) and Room Divider (D) installation is possible as long as the horizontal portion of the vent system (X) does not exceed 20' (6m). See details in manual Venting Section.

* When you install your fireplace in(D) Room divider or (E) Flat on wall corner positions (Y), a minimum of 6" (152mm) clearance must be maintained from the perpendicular wall and the front side edge of the fireplace. See (Y) in Fig. 2.

Clearance to Combustibles

Top of Unit to Ceiling ..... 36" (914 mm)

Appliance

Top ..... 0" (0 mm)
Bottom..... 0" (0 mm)
Side..... 0" (0 mm)
Back ..... 0" (0 mm)

Venting

Concentric sections of DV Vent

Top, bottom & sides ..... 1" (25 mm)
Flex Vent..... 7/8" (22 mm)

Mantels

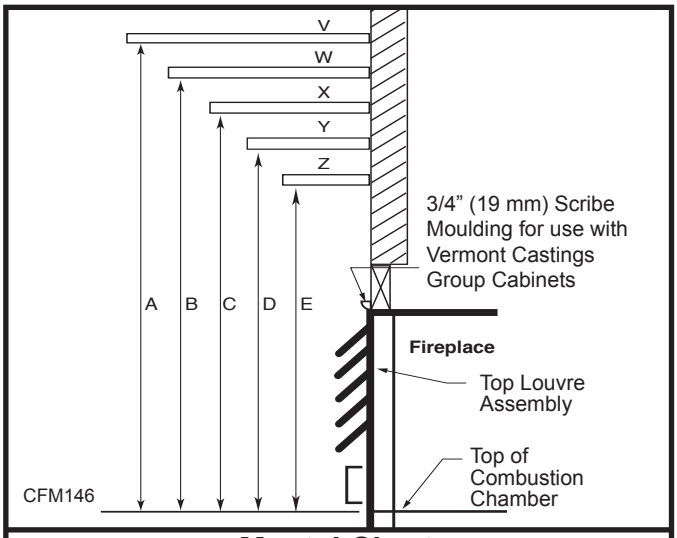
The height that a combustible mantel is fitted above the fireplace is dependent on the depth of the mantel. This also applies to the distance between the mantel leg (if fitted) and the fireplace.

For the correct mounting height and widths refer to Figures 3a and 3b.

The fitting of a bay window trim kit does not effect the distances and reference points referred to in the diagram and chart.

Noncombustible mantels and legs may be installed at any height and width around the appliance.

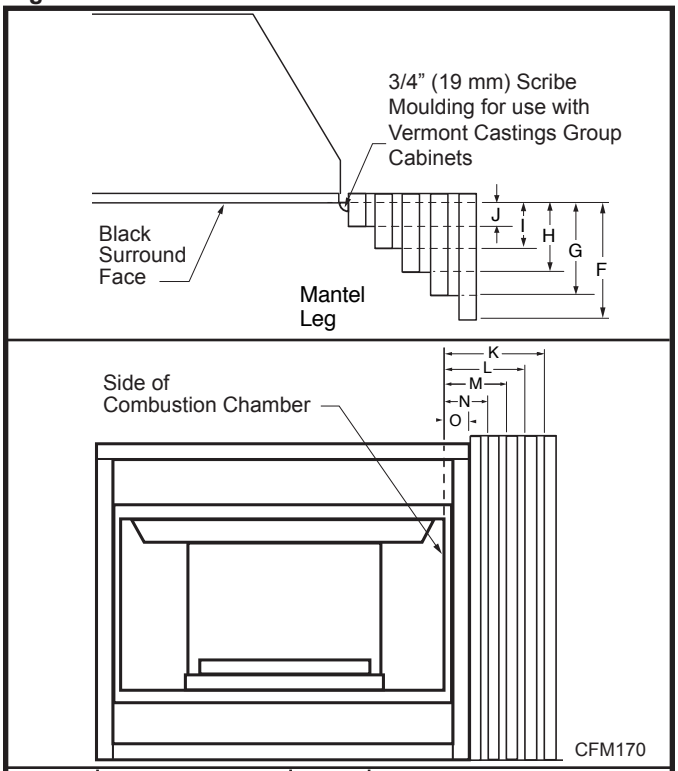
When using paint or lacquer to finish the mantel, such paint or lacquer must be heat resistant to prevent discoloration.



Mantel Chart

Ref.	Mantel Shelf or Breast Plate Depth	Ref.	Mantel from Top of Combustion Chamber	
			36/39/43 LDVT	33LDVT
V	10" (254 mm)	A	17" (432 mm)	16½" (419 mm)
W	8" (203 mm)	B	15" (381 mm)	14½" (368 mm)
X	6" (152 mm)	C	13" (330 mm)	12½" (318 mm)
Y	4" (101 mm)	D	11" (279 mm)	10½" (267 mm)
Z	2" (51 mm)	E	9" (229 mm)	8½" (216 mm)

Fig. 3a Combustible mantel minimum installation.



Ref.	Mantel Leg Depth	Ref.	Mantel Leg FromSide of Comb. Opening
F	10" (254 mm)	K	11½" (292 mm)
G	8" (203 mm)	L	9½" (241 mm)
H	6" (152 mm)	M	7½" (191 mm)
I	4" (101 mm)	N	5½" (140 mm)
J	2" (51 mm)	O	3½" (89 mm)

Fig. 3b Combustible mantel leg minimum installation.

Hearth

A hearth is not mandatory but is recommended for aesthetic purposes. We recommend a noncombustible hearth which projects out 12” (305mm) or more from the front of the fireplace.

Cold climate installation recommendation:

When installing this unit against a non-insulated exterior wall or chase, it is mandatory that the outer walls be insulated to conform to applicable insulation codes.

Framing and Finishing

Check fireplace to make sure it is levelled and properly positioned.

To mount the appliance:

1. Choose the location.
2. This unit comes with four (4) flanges pre-mounted on both sides of the fireplace to allow two different drywall thicknesses to be used. Flange “A” is for 1/2” drywall while flange “B” is for 5/8” drywall.
3. Bend the desired flanges out 90° on both sides of the fireplace. Slide the fireplace into the framed opening until the flanges contact the front surfaces of the framing. Level the unit and secure it firmly in place.

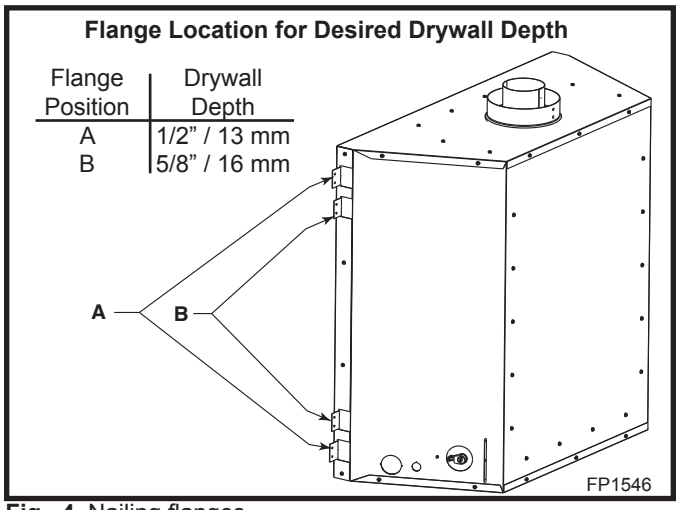


Fig . 4 Nailing flanges.

Final Finishing

Noncombustible materials such as brick or tile may be extended over the edges of the face of the appliance. **DO NOT** cover any vent or grille panels.

If a Trim Kit is going to be installed on the fireplace, the brick or tile will have to be installed flush with the edges of the appliance.

Gas Specifications

Model	Fuel	Gas Control	Max. Input BTU/h	Min. Input BTU/h
33LDVTRN	Nat	Millivolt	16,000	11,200
33LDVTRP	Prop	Millivolt	16,000	12,000
33LDVTEN	Nat	24V Hi/Lo	16,000	11,200
33LDVTEP	Prop*	24V Hi/Lo	16,000	12,000
33LDVTIN	Nat.	6V DC Hi/Lo	16,000	11,200
33LDVTIP*	Prop.*	6V DC Hi/Lo	16,000	12,000
36LDVTRN	Nat	Millivolt	19,500	13,650
36LDVTRP	Prop	Millivolt	19,500	14,625
36LDVTEN	Nat	24V Hi/Lo	19,500	13,650
36LDVTEP	Prop*	24V Hi/Lo	19,500	14,625
36LDVTIN	Nat.	6V DC Hi/Lo	19,500	13,650
36LDVTIP*	Prop.*	6V DC Hi/Lo	19,500	14,625
39LDVTRN	Nat	Millivolt	23,000	16,100
39LDVTRP	Prop*	Millivolt	22,500	16,875
39LDVTEN	Nat	24V Hi/Lo	23,000	16,100
39LDVTEP	Prop*	24V Hi/Lo	22,500	16,875
39LDVTIN	Nat.	6V DC Hi/Lo	23,000	16,100
39LDVTIP*	Prop.*	6V DC Hi/Lo	23,000	16,875
43LDVTRN	Nat	Millivolt	26,000	18,200
43LDVTRP	Prop*	Millivolt	24,000	18,000
43LDVTEN	Nat	24V Hi/Lo	26,000	18,200
43LDVTEP	Prop*	24V Hi/Lo	24,000	18,000

*Using conversion kit

Air Shutter Adjustment

Model	Gas Type	Air Shutter Opening
33LDV	Natural	3/16” Open
36/39/43LDV	Natural	Top & Bottom Hole Half Closed
33/36/39/43LDV	Propane	Fully Open

Gas Inlet and Manifold Pressures

	Natural	LP (Propane)
Inlet Minimum	5.5” w.c.	11.0” w.c.
Inlet Maximum	14.0” w.c.	14.0” w.c.
Manifold Pressure	3.5” w.c.	10.0” w.c.

High Elevations

Input ratings are shown in BTU per hour and are certified without deration for elevations up to 4,500 feet (1,370m) above sea level.

For elevations above 4,500 feet (1,370m) in USA, installations must be in accordance with the current ANSI Z223.1/NFPA 54 and/or local codes having jurisdiction.

In Canada, please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4,500 feet (1,370m).

Gas Line Installation

When purging gas line, the front window frame removed.

The gas pipeline can be brought in through the rear of the fireplace as well as the bottom. Knockouts are provided on the bottom behind the valve to allow for the gas pipe installation and testing of any gas connection. It is most convenient to bring the gas line in from the rear right side of the valve as this allows fan installation or removal without disconnecting the gas line.

The gas line connection can be made with properly tinned 3/8" copper tubing, 3/8" rigid pipe or an approved flex connector. Since some municipalities have additional local codes, it is always best to con- sult your local authority and the National Fuel Gas Code, ANSI Z223.1/NFPA 54 in the USA or the CSA-B149.1 installation codes.

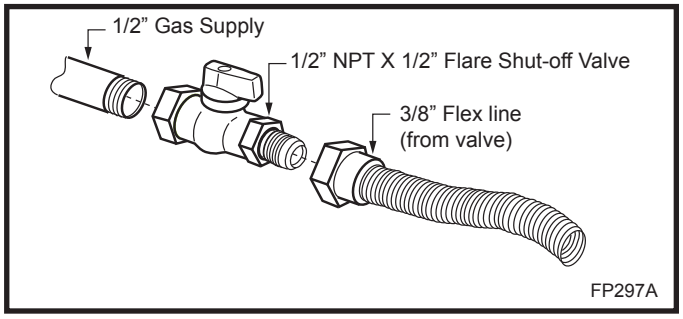


Fig. 5 Typical gas supply installation.

Always check for gas leaks with a mild soap and water solution. Do not use an open flame for leak testing.

The gas control is equipped with a captured screw type pressure test point, therefore it is not necessary to provide a 1/8" test point up stream of the control.

When using copper or flex connector use only approved fittings. Always provide a union when using black iron pipe so that the gas line can be easily disconnected for burner or fan servicing . See gas specifications for pressure details and ratings.

The fireplace valve must not be subjected to any test pressures exceeding 1/2 psi. Isolate or disconnect this or any other gas appliance control from the gas line when pressure testing.

Remote ON/OFF Switch

Installation:

1. Thread the wiring through holes on the end panels of appliance. Take care not to cut wire or insulation on metal edges. Route the wire to a conveniently located receptacle box.
2. Attach the wire to the ON/OFF switch and install the switch into the receptacle box.
3. Connect the other ends of the wire to the gas control valve. (Fig. 6)

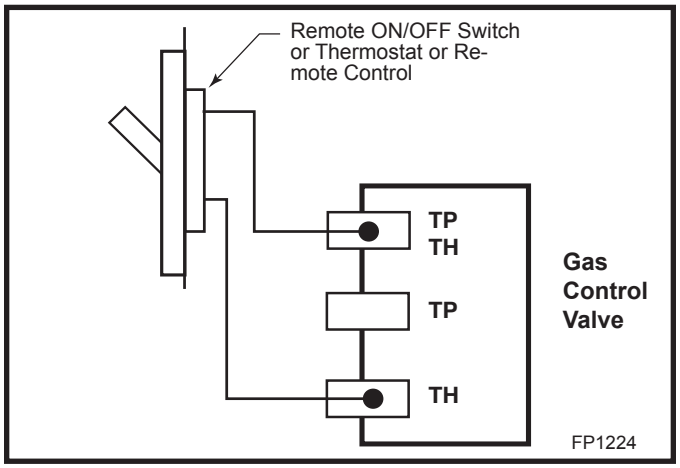


Fig. 6 Remote switch wiring diagram.

Alternate Switch Location

The remote switch can be installed on the front/side of the access door. Simply mount the switch to the bracket provided and screw the bracket to either side of the frame, lining up the screws with the pre-punched holes. (Fig. 7)

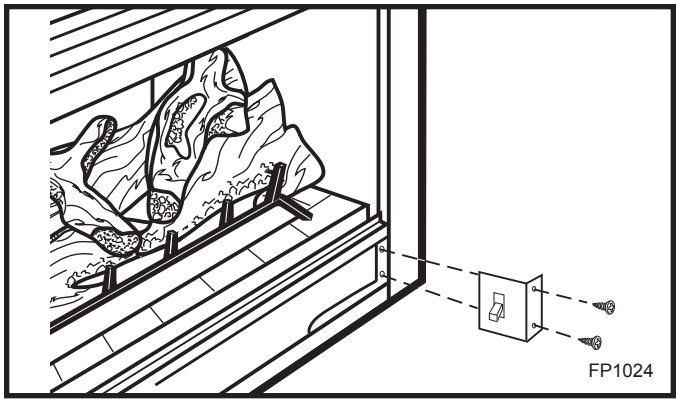


Fig. 7 Alternate switch location.

Do not wire the remote ON/OFF wall switch for the gas fireplace to the 120 volt power supply.

EB-1 Electrical Box

The fireplace, when installed, must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current CSA C22.1 Canadian Electrical Code.

For USA installations follow local codes and the national electrical code ANSI/NFPA No. 70.

It is strongly suggested that the wiring of the EB-1 Electrical Junction Box be carried out by a licensed electrician.

Ensure that the power to the supply line has been disconnected before commencing this procedure.

The EB-1 Electrical junction box has been fitted standard on this model to allow for the easy connection of an optional fan kit.

To connect the EB-1 box to the house electrical supply follow the steps below.

1. Unscrew retaining screw from EB-1 base plate (Fig. 8) and remove the EB-1 assembly from the appliance.
2. Remove the front cover of the EB box.
3. Remove the plug socket assembly from the EB-1 box.
4. Feed the supply line in through the EB-1 opening in the side of the appliance and then through the back of the EB-1 assembly. (Fig. 8)
5. Connect the black wire of the power supply line to the brass screw (polarized) of the socket assembly.
6. Connect the white wire of the power line to the chrome screw of the socket assembly.
7. Connect the ground wire of the supply line to the green screw of the socket assembly.
8. Refit the socket assembly back into the electrical box and replace the cover plate. Secure the cable with the clamp on the outside of the EB-1 base plate and refit the EB-1 assembly to the unit with the screw removed in step 1.

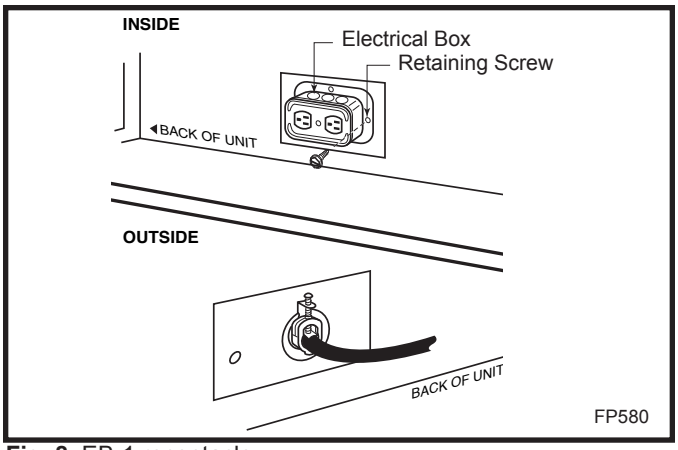


Fig. 8 EB-1 receptacle.

Electronic Gas Control Valve

This appliance may be fitted with a Synetek ignition module.

Installation of the remote on/off switch or wall thermostat on electronic ignition units.

1. Thread the wiring through the holes on the side panels of the appliance. Take care not to cut the wire or insulation on metal edges. Route the wire to a conveniently located receptacle box.
2. Attach the wire to the ON/OFF switch and install the switch into the receptacle box.
3. Connect the white wire from the wall switch or wall thermostat to the white wire terminal from the electronic module. Connect the black wire from the wall switch or the red wire from the wall thermostat, to the red wire terminal from the electronic module.

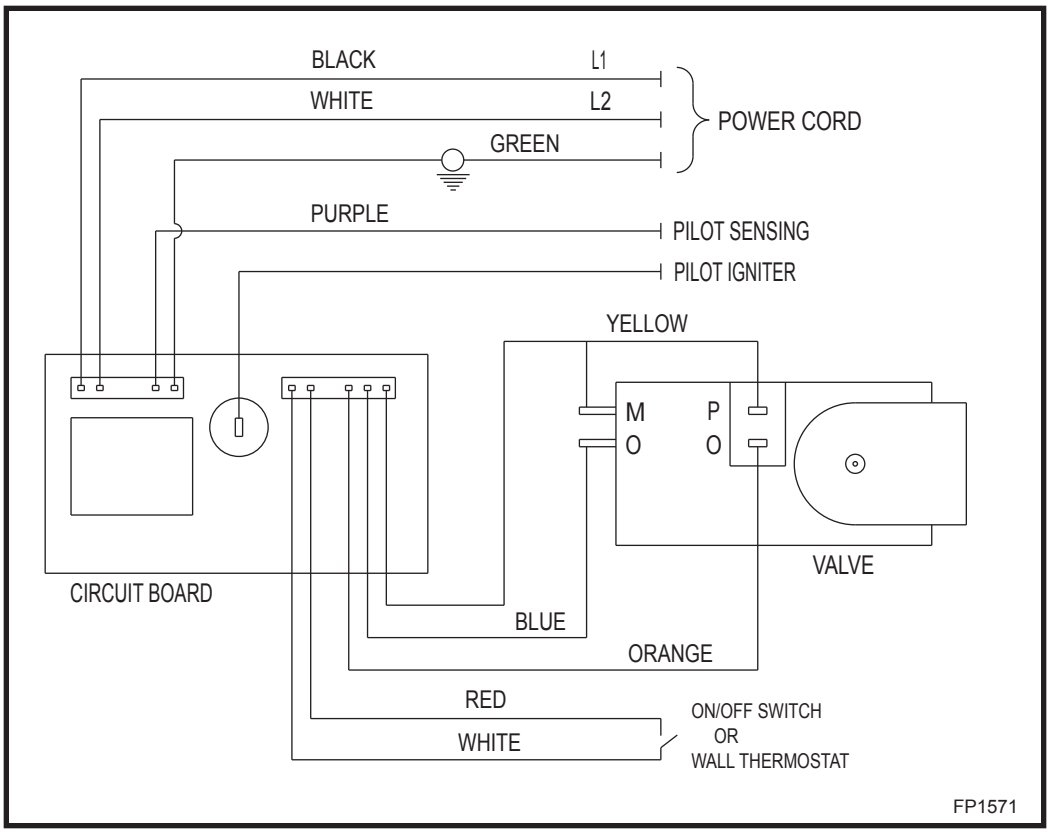


Fig. 9 SIT822 Valve with Synetek electronic control wiring diagram.

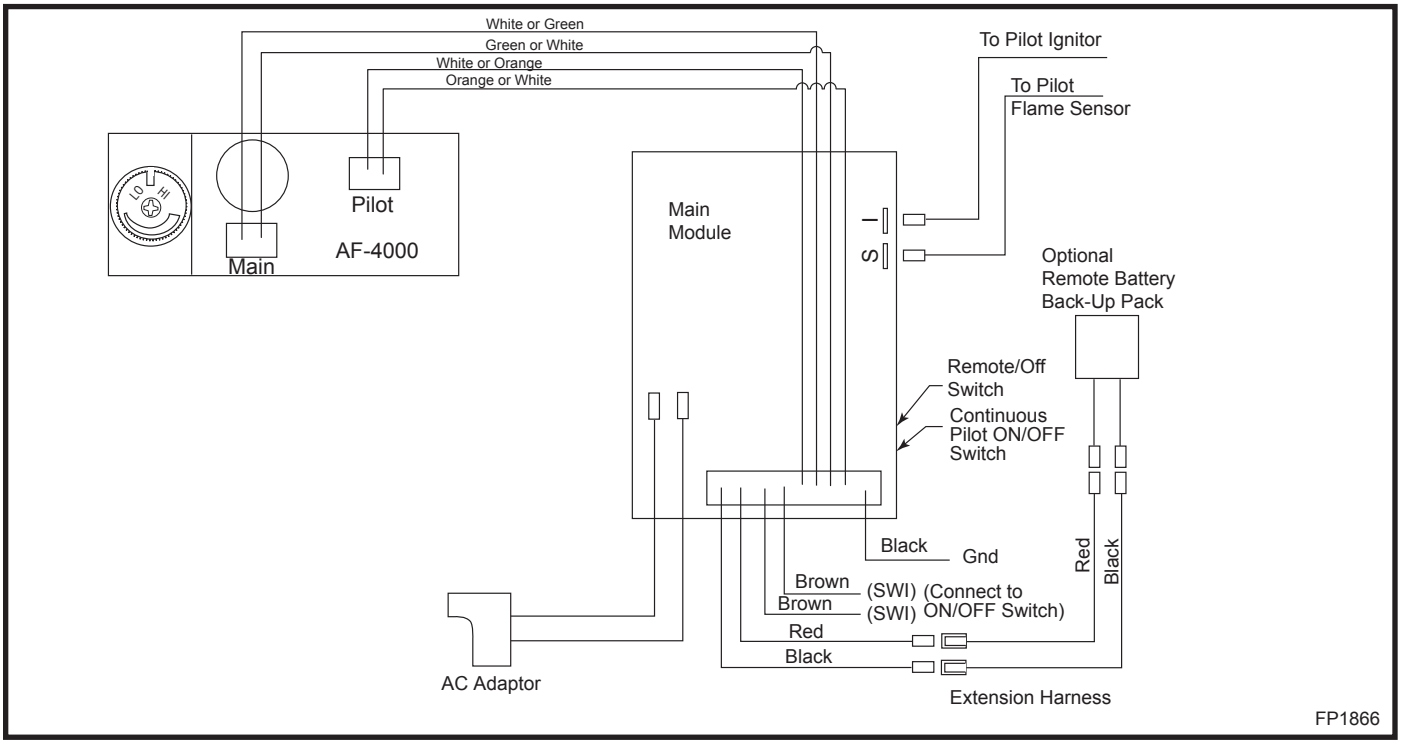


Fig. 10 American Flame Valve AF-4010-IN wiring diagram.

General Venting

Your fireplace is approved to be vented either through the side wall, or vertically through the roof.

- **Only Vermont Castings Group venting components specifically approved and labelled for this fireplace may be used.**
- Vent terminations shall not be recessed into a wall or siding.
- Horizontal venting which incorporates the twist lock pipe must be installed on a level plane without an inclining or declining slope.
- Horizontal venting which incorporates the use of flex venting shall have an inclining slope from the unit of 1" (25 mm) per 24" (610 mm).

There must not be any obstruction such as bushes, garden sheds, fences, decks or utility buildings within 24" (610 mm) from the front of the termination hood.

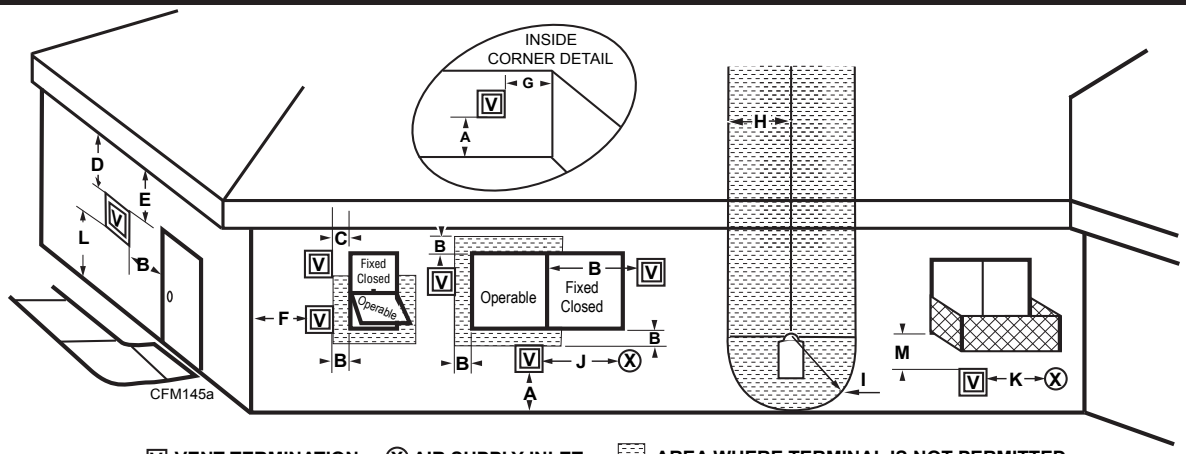
Do not locate termination hood where excessive snow or ice build up may occur. Be sure to check vent termination area after snow falls, and clear to prevent accidental blockage of venting system. When using snow blowers, make sure snow is not directed towards vent termination area.

Location of Vent Termination

It is imperative the vent termination be located observing the minimum clearances as shown on the next page.

*Check with local codes or in absence of same with CSA-B149.1 Installation Codes (1991) for Canada or follow the current National Fuel Gas Code, ANSI Z223.1/NFPA 54 for installations in the USA.

General Venting Information - Termination Location



V VENT TERMINATION X AIR SUPPLY INLET AREA WHERE TERMINAL IS NOT PERMITTED

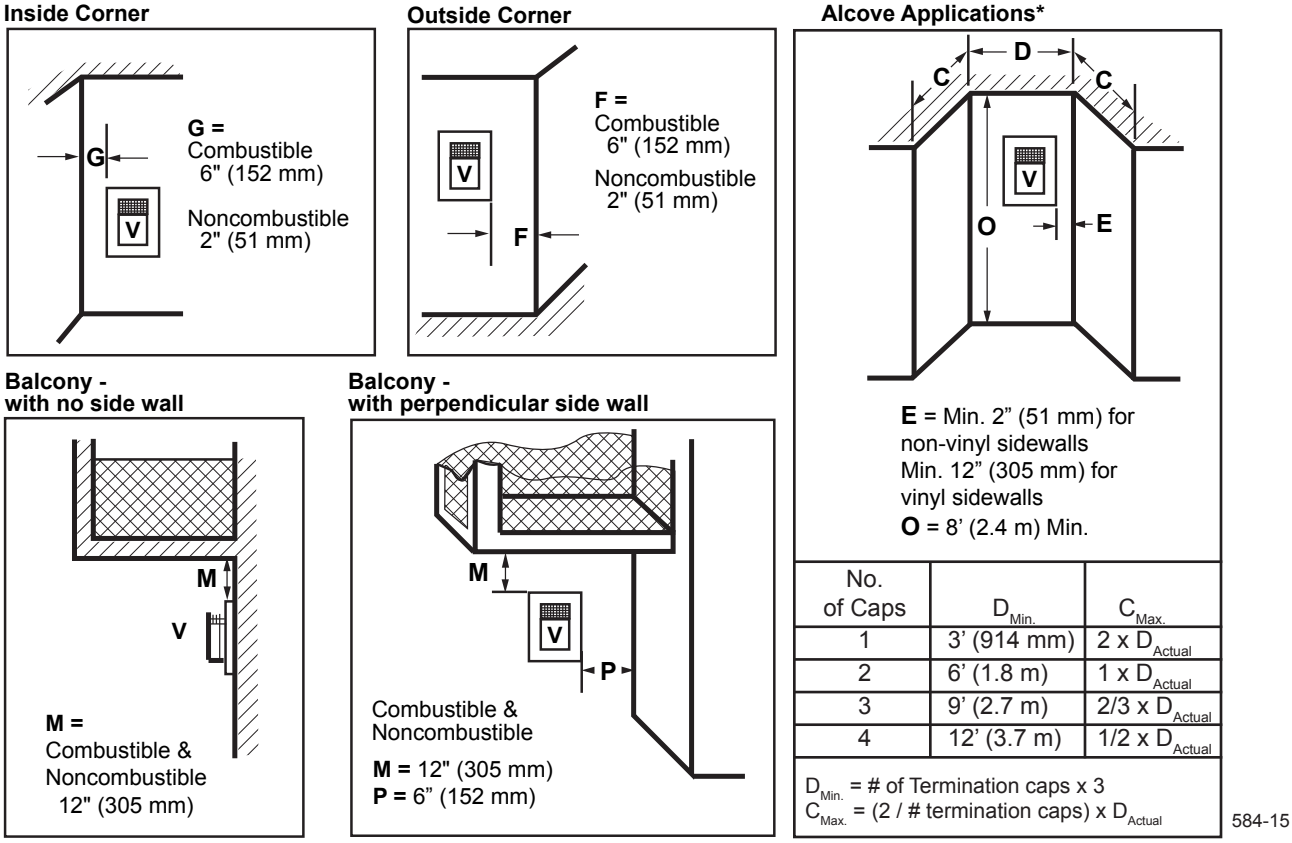
	Canadian Installations[1]	US Installations[2]
A = Clearance above grade, veranda, porch, deck, or balcony	12” (30cm)	12” (30cm)
B = Clearance to window or door that may be opened	6” (15cm) for appliances < 10,000Btuh (3kW), 12” (30cm) for appliances > 10,000 Btuh (3kW) and < 100,000 Btuh (30kW), 36” (91cm) for appliances > 100,000 Btuh (30kW)	6” (15cm) for appliances < 10,000 Btuh (3kW), 9” (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12” (30cm) for appliances > 50,000 Btuh (15kW)
C = Clearance to permanently closed window	12” (305mm) recommended to prevent window condensation	12” (305mm) recommended to prevent window condensation
D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2’ (610mm) from the center line of the terminal	18” (458mm)	18” (458mm)
E = Clearance to unventilated soffit	12” (305mm)	12” (305mm)
F = Clearance to outside corner	see next page	see next page
G = Clearance to inside corner (see next page)	see next page	see next page
H = Clearance to each inside of center line extended above meter/regulator assembly	3’ (91cm) within a height of 15’ (5m) above the meter/regulator assembly	3’ (91cm) within a height of 15’ (5m) above the meter/regulator assy
I = Clearance to service regulator vent outlet	3’ (91cm)	3’ (91cm)
J = Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliances	6” (15cm) for appliances < 10,000 Btuh (3kW), 12” (30cm) for appliances > 10,000 Btuh (3kW) and < 100,000 Btuh (30kW), 36” (91cm) for appliances > 100,000 Btuh (30kW)	6” (15cm) for appliances < 10,000 Btuh (3kW), 9” (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12” (30cm) for appliances > 50,000 Btuh (15kW)
K = Clearance to a mechanical air supply inlet	6’ (1.83m)	3’ (91cm) above if within 10 feet (3m) horizontally
L = Clearance above paved sidewalk or paved driveway located on public property	7’ (2.13m)†	7’ (2.13m)†
M = Clearance under veranda, porch, deck or balcony	12” (30cm)‡	12” (30cm)‡
N = Clearance above a roof shall extend a minimum of 24” (610mm) above the highest point when it passes through the roof surface, and any other obstruction within a horizontal distance of 18” (450mm).		

1 In accordance with the current CSA-B149 Installation Codes
2 In accordance with the current ANSI Z223.1/NFPA 54 National Fuel Gas Codes
† A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings
‡ only permitted if veranda, porch, deck or balcony is fully open on a minimum 2 sides beneath the floor:
NOTE: 1. Local codes or regulations may require different clearances.
2. The special venting system used on Direct Vent Fireplaces are certified as part of the appliance, with clearances tested and approved by the listing agency.
3. Vermont Castings Group assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

Fig. 11 Vent termination locations.

Termination Clearances

Termination clearances for buildings with combustible and noncombustible exteriors.



No. of Caps	$D_{Min.}$	$C_{Max.}$
1	3' (914 mm)	2 x D_{Actual}
2	6' (1.8 m)	1 x D_{Actual}
3	9' (2.7 m)	2/3 x D_{Actual}
4	12' (3.7 m)	1/2 x D_{Actual}

$D_{Min.}$ = # of Termination caps x 3
$C_{Max.}$ = (2 / # termination caps) x D_{Actual}

584-15

***NOTE:** Termination in an alcove space (spaces open only on one side and with an overhang) is permitted with the dimensions specified for vinyl or non-vinyl siding and soffits. 1. There must be a 3' (914 mm) minimum between termination caps. 2. All mechanical air intakes within 10' (1 m) of a termination cap must be a minimum of 3' (914 mm) below the termination cap. 3. All gravity air intakes within 3' (914 mm) of a termination cap must be a minimum of 1' (305 mm) below the termination cap.

Fig. 12 Termination clearances.

General Information on Assembling Vent Pipes

Canadian Installations:

The venting system must be installed in accordance with the current CSA-B149 .1 installation code.

USA Installations:

The venting system must conform with local codes and/or the current National Fuel Gas code ANSI Z223.1/NFPA 54.

Only venting components manufactured by Vermont Castings Group can be used in Direct Vent systems.

Flex Vent Pipes

Before joining the flex vent pipe to the unit, apply a bead of high temperature sealant* (provided) to the 4" pipe exiting the fireplace. Secure flex vent pipe in place with a hose clamp (provided).

*Be sure the flex pipe overlaps at least 1" (25 mm) onto the collars of the fireplace and termination. If the termination has an internal bead, be sure to overlap and secure 1" (25 mm) past the bead.

* Be sure the vent is actually crushed before proceeding. Apply a tug to be sure the vent will not slip off the collars.

Repeat process with 7" flex vent pipe. The same procedure must be performed on the vent side.

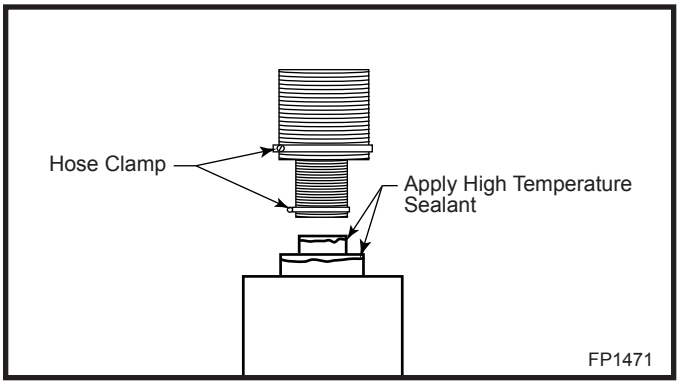


Fig. 13 Apply high temperature sealant to 4" and 7" pipes.

Twist Lock Pipes

When using Vermont Castings Group twist-lock pipe it is not necessary to use sealant on the joints. The only areas of the venting system that need to be sealed with high temperature silicone sealant are the sliding joints of any telescopic vent section used in the system.

To join the twist lock pipes together, simply align the beads of the male end with the grooves of the female end, then while bringing the ends together, twist the pipe until the flange on the female end contacts the external flange on the male end. It is recommended that you secure the joints with three (3) sheet metal screws, however this is not mandatory with twist lock pipe.

To make it easier to assemble the joints we suggest putting a lubricant (Vaseline or similar) on the male end of the twist lock pipe prior to assembly.

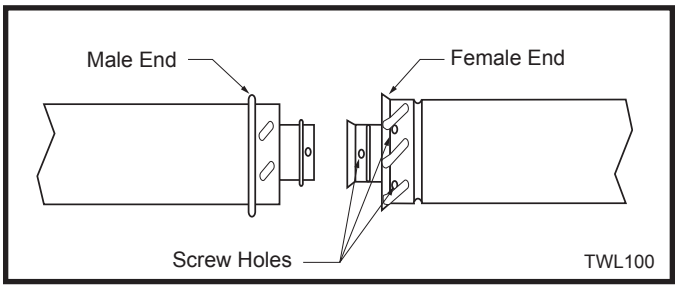


Fig. 14 Twist-lock pipe joints.

How to Use the Vent Graph

The vent chart should be read in conjunction with the following vent installation instructions to determine the relationship of the vertical and horizontal dimensions of the vent system.

1. Determine the height of the center of the horizontal vent pipe exiting through the outer wall. Using this dimension on the Sidewall Vent Graph. (Fig. 15) locate the point intersecting with the slanted graph line.
2. From the point of this intersection, draw a vertical line to the bottom of the graph.
3. Select the indicated dimension, and position the fireplace in accordance with same.

Example A:
If the vertical dimension from the floor of the fireplace is 11' (3.4 m) the horizontal run to the face of the outer wall must not exceed 14' (4.3 m).

Example B:
If the vertical dimension from the floor of the unit is 7' (2.14 m), the horizontal run to the face of the outer wall must not exceed 8½' (2.6 m).

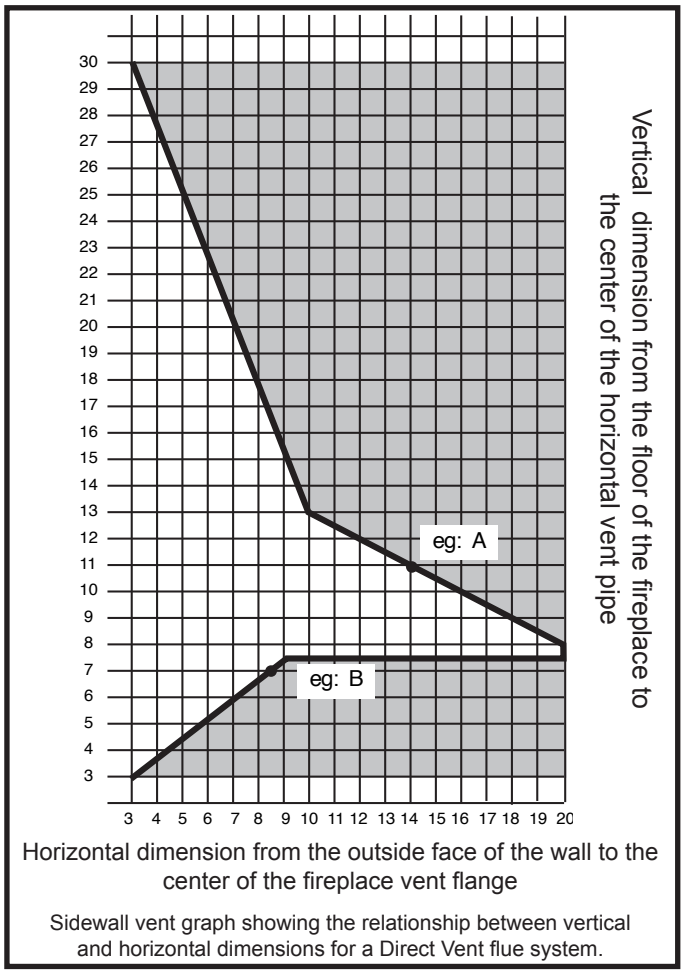

Vertical dimension from the floor of the fireplace to the center of the horizontal vent pipe
30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
eg: A
eg: B
Horizontal dimension from the outside face of the wall to the center of the fireplace vent flange
Sidewall vent graph showing the relationship between vertical and horizontal dimensions for a Direct Vent flue system.

Fig. 15 Sidewall venting graph. (Dimensions in feet)

Vertical Sidewall Applications

Since it is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust, certain limitations as to vent configurations apply and must be strictly adhered to.

The vent graph showing the relationship between vertical and horizontal side wall venting will help to determine the various dimensions allowable.

Minimum clearance between vent pipes and combustible materials is one 1" (25mm) on top, bottom and sides unless otherwise noted.

When the vent termination exits through foundations less than 20" (508mm) below siding outcrop, the vent pipe must flush up with the siding.

It is always best to locate the fireplace in such a way that minimizes the number of offsets and horizontal vent length of vent pipe from the flue collar of the fireplace to the face of the outer wall.

Horizontal plane means no vertical rise exists on this portion of the vent assembly.

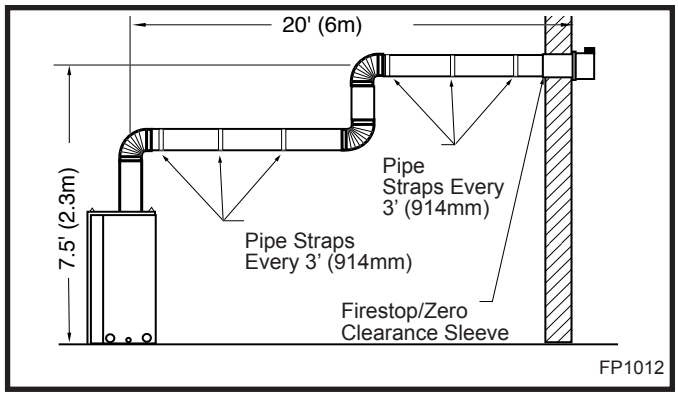


Fig. 16 Support straps for horizontal runs.

- The maximum number of 90° elbows per side wall installations is three (3).
- If a 90° elbow is fitted directly onto the fireplace flange the maximum horizontal vent run before the termination or a vertical rise is 36” (914 mm).•
  If a 90° elbow is used in the horizontal vent run (level height maintained) the maximum horizontal vent length is reduced by 36” (914 mm). This does not apply if the 90° elbows are used to increase or redirect a vertical rise.
  Example: According to the chart the maximum horizontal vent length in a system with a 7.5’ (2.3 m) vertical rise is 20’ (6 m) and if a 90° is required in the horizontal vent it must be reduced to 17’ (5.2 m).
  In Figure 18, Dimension A plus B must not be greater than 17’ (5.2 m).

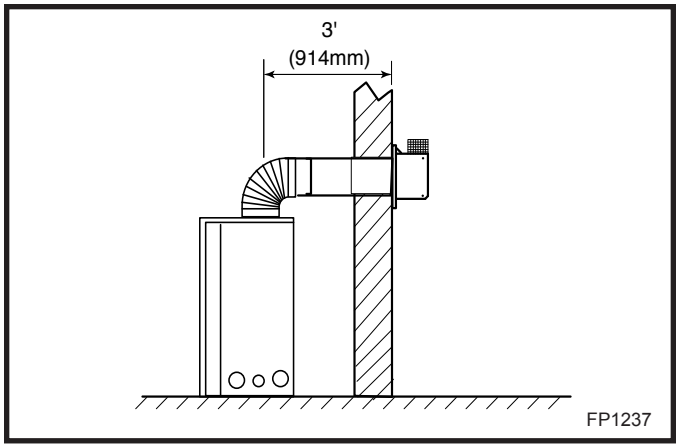


Fig. 17 Maximum horizontal vent run.

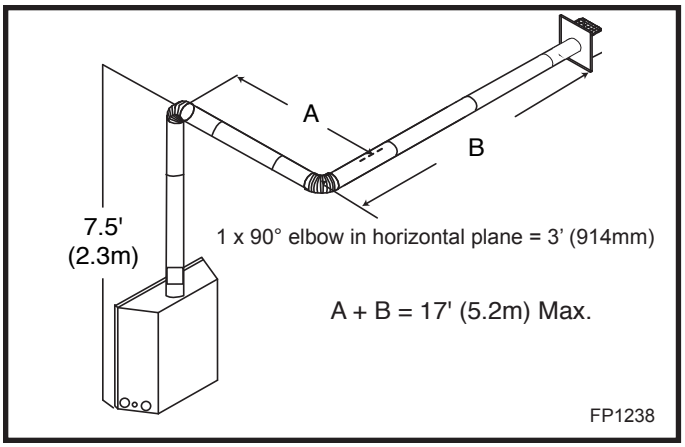


Fig. 18 Maximum vent run with elbows.

- The maximum number of 45° elbows permitted per installation is six (6). These elbows can be installed in either the vertical or horizontal run.
- For each 45° elbow installed in the horizontal run, the length of the horizontal run MUST be reduced by 18” (457 mm). This does not apply if the 45° elbows are installed on the vertical part of the vent system.
- The maximum number of elbow degrees in a system is 270°. (Fig. 19)

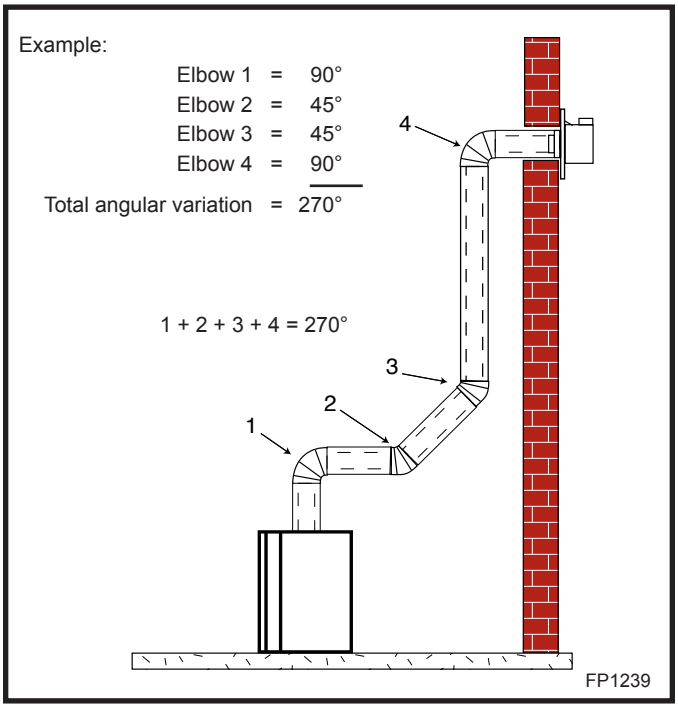


Fig. 19 Maximum number of elbow degrees.

Vertical Sidewall Installation Twist Lock Pipe

STEP 1

Locate vent opening on the wall. It may be necessary to first position the fireplace and measure to obtain hole location. Depending on whether the wall is combustible or noncombustible, cut opening to size. (Fig. 20)

For combustible walls first frame in opening.

NOTE: When using flex vent, the opening will have to be measured according to the 1/2" (13 mm) rise in 12" (305 mm) vent run.

Combustible Walls: (Fig. 20) Cut a 9⅜"H x 9⅜"W (240 x 240 mm) hole through the exterior wall and frame as shown.

Noncombustible Walls: (Fig. 20) Hole opening must be 7½" (190 mm) in diameter.

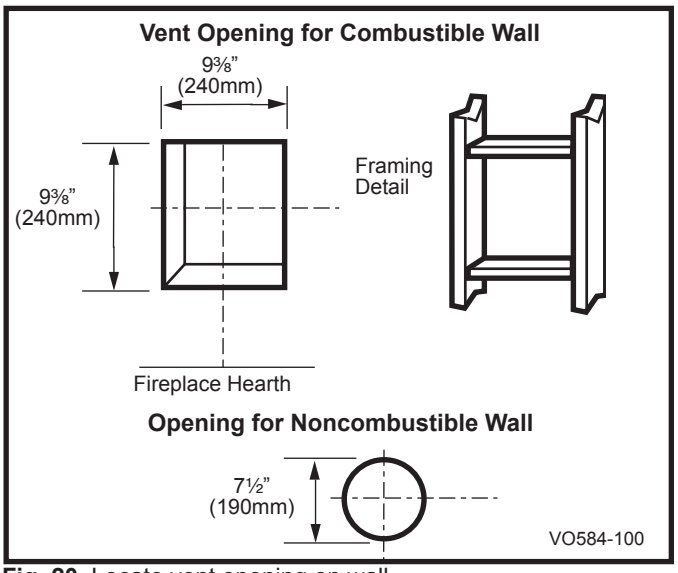


Fig. 20 Locate vent opening on wall.

STEP 2

Measure wall thickness and cut zero clearance sleeve parts to proper length (MAXIMUM 12"/305 mm). Assemble sleeve and attach to firestop with #8 sheet metal screws (supplied). Install firestop assembly. (Fig. 21)

Zero clearance sleeve is only required for combustible walls.

STEP 3

Place fireplace into position. (Fig. 22) Measure the vertical height (X) required from the base of the flue collars to the center of the wall opening.

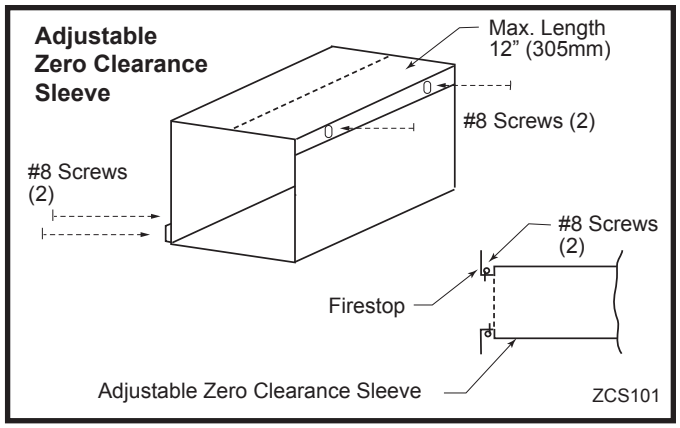


Fig. 21 Adjustable zero clearance sleeve.

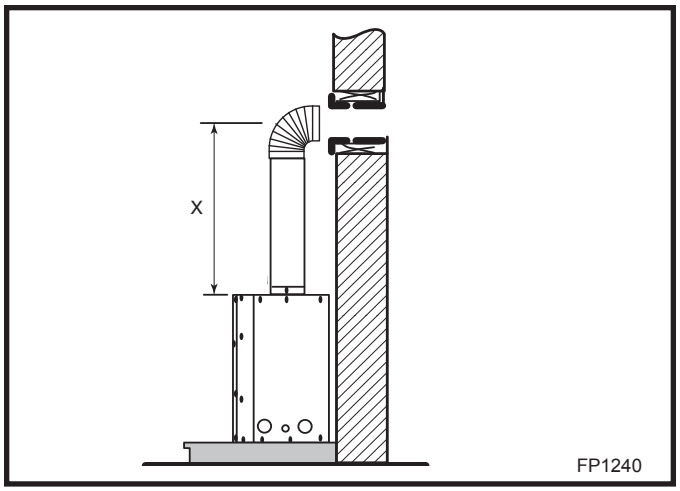


Fig. 22 Vertical height requirement.

STEP 4

Attach the appropriate venting component(s) to the inner and outer flue collars of the fireplace using three (3) screws. (Fig. 23) Follow with the installation of the inner and outer elbow. Again secure joints with three (3) sheet metal screws.

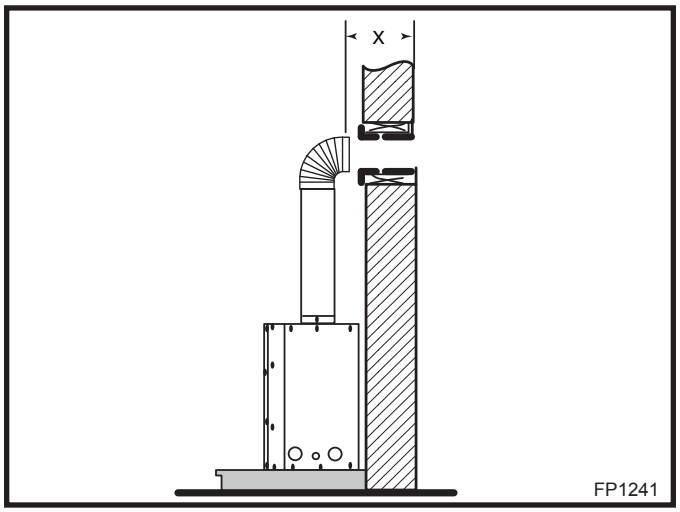


Fig. 23 Horizontal length requirement.

STEP 5

Measure the horizontal length requirement including a 2” (51 mm) overlap, ie from the elbow to the outside wall face plus 2” (51 mm) (or the distance required if installing a second 90° elbow). (Fig. 23)

Always install horizontal venting on a level plane.

STEP 6

Use appropriate length of pipe sections - telescopic or fixed - and install the horizontal vent sections. The sections which go through the wall are packaged with the starter kit, and can be cut to suit if necessary. (Fig. 24)

Sealing vent pipe and firestop gaps with high temperature sealant will restrict cold air being drawn in around fireplace.

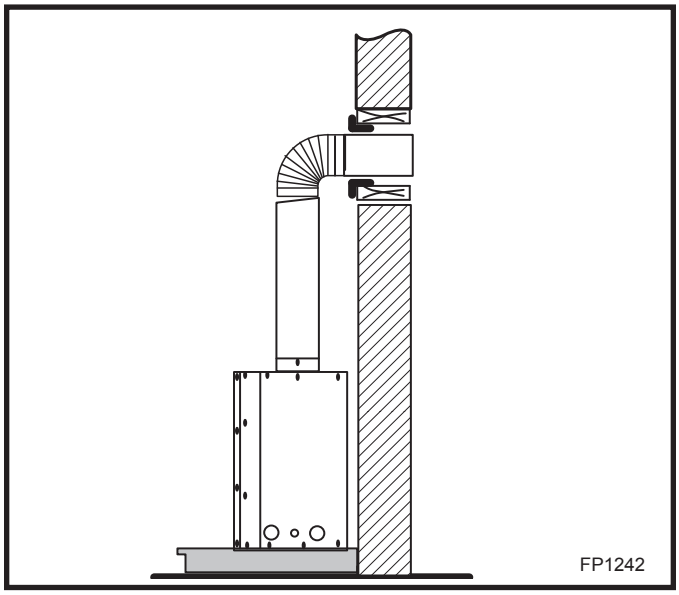


Fig. 24 Through the wall.

STEP 7

Guide the vent terminations 4” and 7” collars into their respective vent pipes. Double check that the vent pipes overlap the collars by 2” (51 mm). Secure the termination to the wall with screws provided and caulk around the wall plate to weatherproof. (Fig. 25) As an alternative to screwing the termination directly to the wall you may also use expanding plugs or an approved exterior construction adhesive. You may also attach the termination with screws through the inner body into the 4” (102 mm) vent pipe however for this method you must extend the 4” (102 mm) pipe approximately 6” (152 mm) beyond the outer face of the wall.

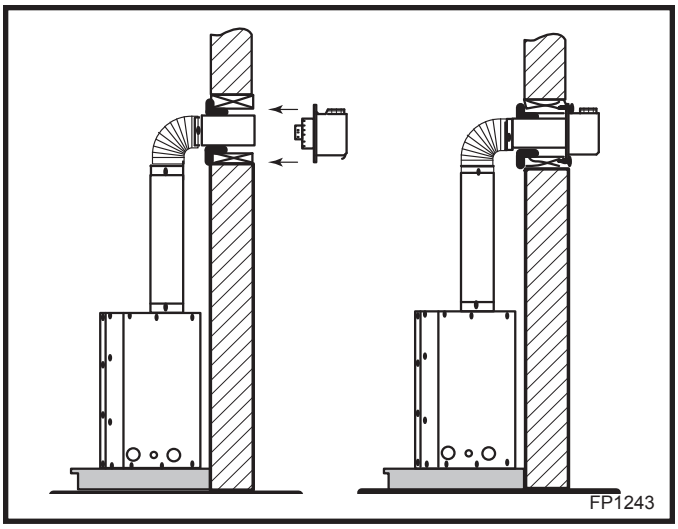


Fig. 25 Apply high temperature sealant to collars or terminations.

Support horizontal pipes every 3’ (914 mm) with metal pipe straps. Make sure the horizontal vent pipe is installed on a level horizontal plane.

Vertical Sidewall Installation Flex Vent Pipe

NOTE: The 40” (1016 mm) flex vent is used for 90° off the top of the unit then out the back wall.

Follow Step 1 and 2 on Page 16.

Step 3

Install the four (4) spacer springs on the 4” flex vent pipe. When installing the spacer springs around the 4” pipe, stretch the spring to approximately 15” (381 mm), wrap the spring around the pipe and interlock the ends of the spacer spring approximately 2” (51 mm). Measure 6¾” (172 mm) from the end of the pipe. Place the next spring 5” (127 mm) from the previously installed spring. Place the next spring 6” (152 mm) from the last spring. Finally place the last spring 12” (305 mm) from the last spring installed. (Fig. 26)

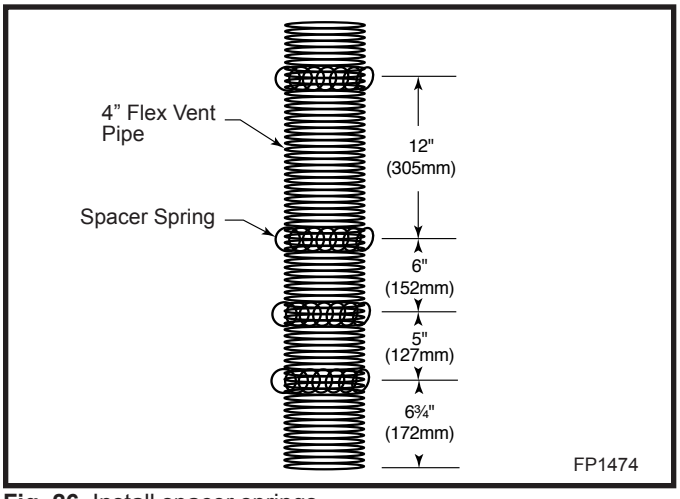


Fig. 26 Install spacer springs.

Step 4

Install the 4” (102 mm) flex vent pipe to the appliance collar as described on Page 13. Secure the end with the first spring 6¾” (172 mm) from the flex pipe end to the unit.

Step 5

Slide the 7” (178 mm) flex vent pipe over the 4” flex vent pipe and secure the 7” collar as described on Page 13.

Step 6

Bend the flex pipe horizontal so the bottom of the horizontal pipe measure 6½” (165mm) from the top of the unit immediately after the 90° formation. (Fig. 27) Be sure to follow the 1” (25mm) rise in a 24” (610 mm) horizontal run rule.

Step 7

Install the 4” flex then 7” flex to the termination.

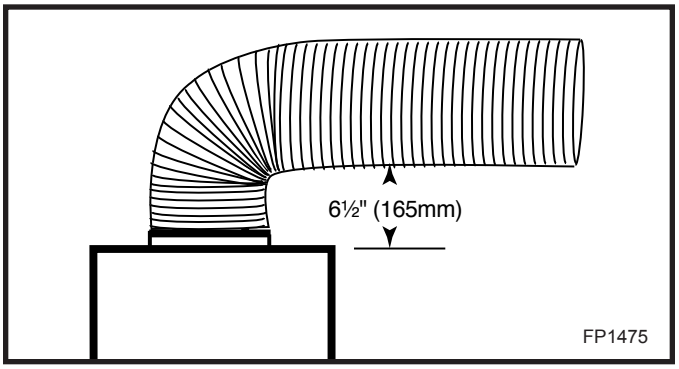


Fig. 27 Bend flex vent at 90° so horizontal portion is 6½” (165 mm) off top of unit.

Below Grade Installations

When it is not possible to meet the required vent terminal clearances of 12” (305 mm) above grade level a snorkel vent kit is recommended. It allows installation depth of down to 7” (178 mm) below grade level. The 7” is measured from the center of the horizontal vent pipe as it penetrates through the wall.

If venting system is installed below ground, we recommend a window well with adequate and proper drainage.

Ensure sidewall venting clearances are observed.

If installing a snorkel a minimum 24” (610 mm) vertical rise is necessary. The maximum horizontal run with the 24” (610 mm) vertical pipe is 36” (914 mm). This measurement is taken from the collar of the fireplace (or transition elbow) to the face of the exterior wall. Refer to the Sidewall Vent Graph for extended horizontal run if the vertical rise exceeds 24” (610 mm).

1. Establish vent hole through the wall. (Fig. 20)
2. Remove soil to a depth of approximately 16” (406 mm) below base of snorkel. Install drain pipe. Install window well (not supplied). Refill hole with 12” (305 mm) of coarse gravel leaving a clearance of approximately 4” (102 mm) below snorkel. (Fig. 28)
3. Install vent system.
4. Ensure a watertight seal is made around the vent pipe coming through the wall.
5. Apply high temperature sealant caulking (supplied) around the 4” and 7 “ snorkel collars.
6. Slide the snorkel into the vent pipes and secure to the wall.
7. Level the soil to maintain a 4” (102 mm) clearance below snorkel. (Fig. 28)

Do not back fill around snorkel. A clearance of at least 4” (102 mm) must be maintained between snorkel and the soil.

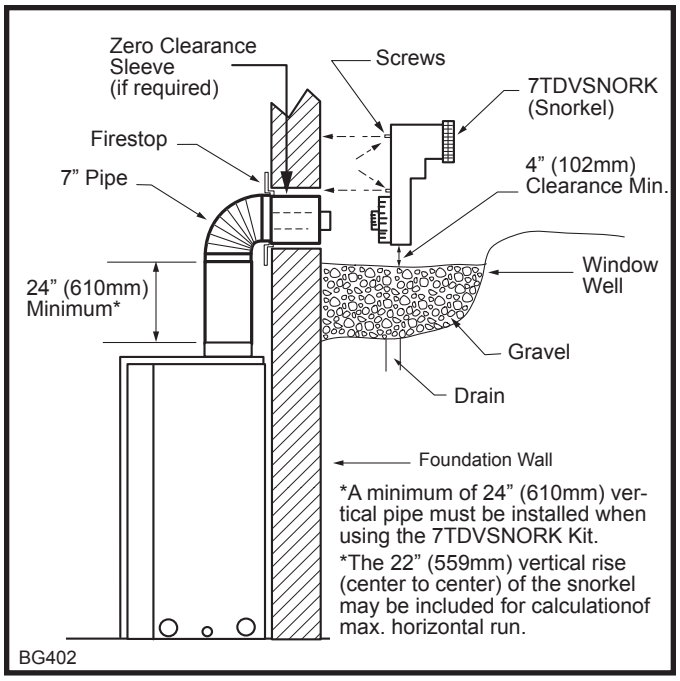

Zero Clearance Sleeve (if required)
Screws
7TDVSNORK (Snorkel)
Firestop
7” Pipe
4” (102mm) Clearance Min.
Window Well
24” (610mm) Minimum*
Gravel
Drain
Foundation Wall
*A minimum of 24” (610mm) vertical pipe must be installed when using the 7TDVSNORK Kit.
*The 22” (559mm) vertical rise (center to center) of the snorkel may be included for calculationof max. horizontal run.
BG402

Fig. 28 Below grade installation.

If the foundation is recessed, use recess brackets (not supplied) for securing lower portion of the snorkel. Fasten brackets to wall first, then secure to snorkel with self drilling #8 x 1/2 sheet metal screws. It will be necessary to extend vent pipes out as far as protruding wall face. (Fig. 29)

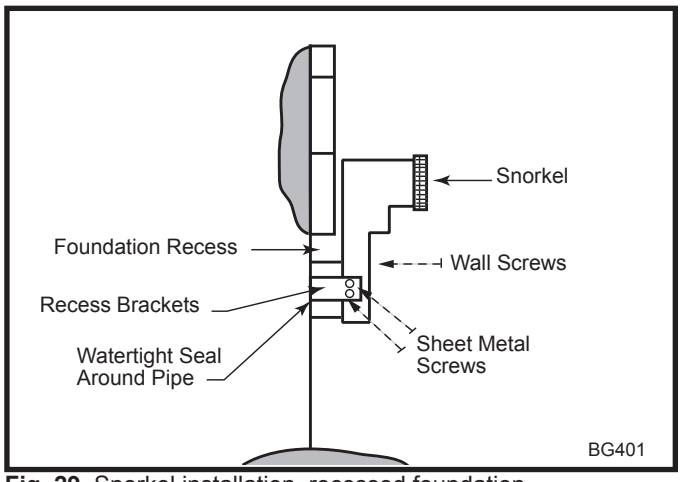


Fig. 29 Snorkel installation, recessed foundation.

Vertical Through-the-Roof Applications

This Gas Fireplace has been approved for:

- Vertical installations up to 40’ (12 m) in height. Up to a 10’ (3 m) horizontal vent run can be installed within the vent system using a maximum of two 90° elbows. (Fig. 30)

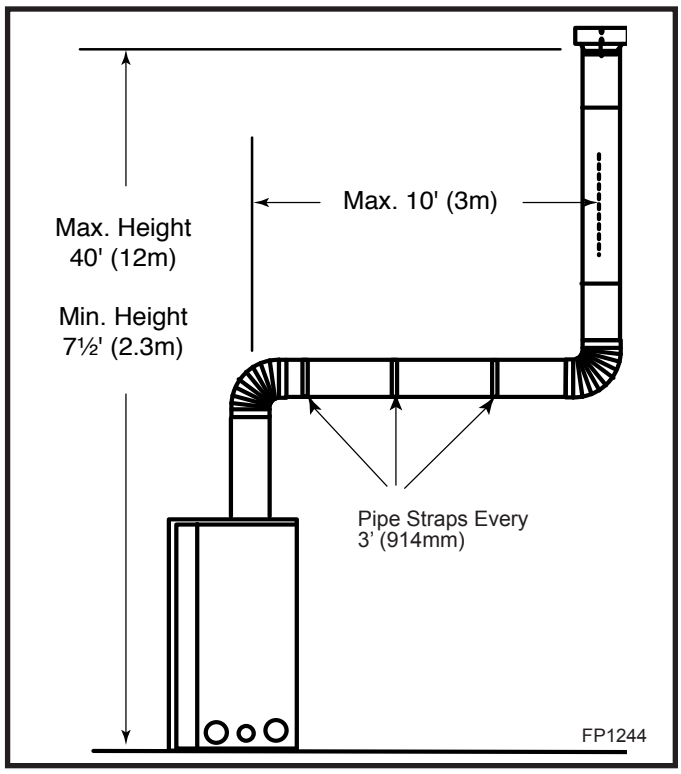


Fig. 30 Support straps for horizontal runs.

- Up to two 45° elbows may be used within the horizontal run. For each 45° elbow used on the horizontal level the maximum horizontal length must be reduced by 18” (457 mm).

  Example: Maximum horizontal length
  0 x 45° elbows = 10’ (3 m)
  1 x 45° elbows = 8½’ (2.6 m)
  2 x 45° elbows = 7’ (2.1 m)

- A minimum of an 8’ (2.4 m) vertical rise.
- Two sets of 45° elbows offsets within these vertical installations. From 0 to a maximum of 8’ (2.4 m) of vent pipe can be used between elbows. (Fig. 31)
- 7DVCS must be used to support offsets. (Fig. 33) This application will require that you first determine the roof pitch and use the appropriate starter kit. (Refer to Venting Components List)
- The minimum height of the vent above the highest point of penetration through the roof is 2’ (610 mm). (Fig. 35)

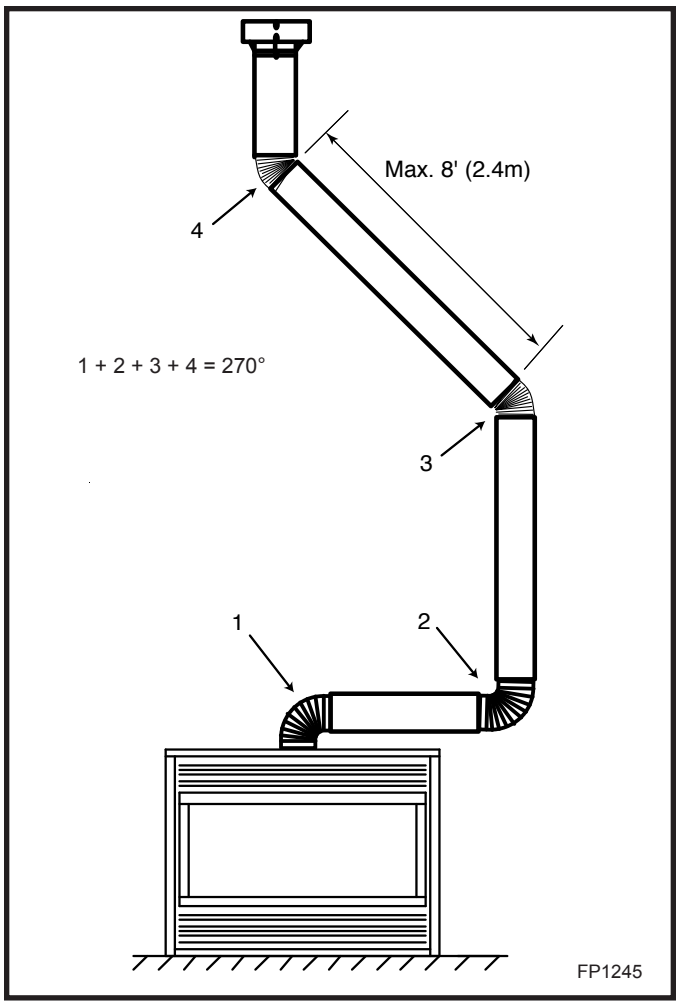


Fig. 31 Typical offset application.

Vertical Through-the-Roof Installation

1. Locate your fireplace.
2. Plumb to center of the (4" (102 mm) flue collar from ceiling above and mark position.
3. Cut opening equal to 9⅜" x 9⅜" (240 x 240 mm).
4. Proceed to plumb for additional openings through the roof. In all cases, the opening must provide a minimum of 1" (25 mm) clearance to the vent pipe, i.e., the hole must be at least 9⅜" x 9⅜" (240 x 240 mm).
5. Place fireplace into position.
6. Place firestop(s) #7DVFS or Attic Insulation Shield #7DVAIS into position and secure. (Fig. 32)

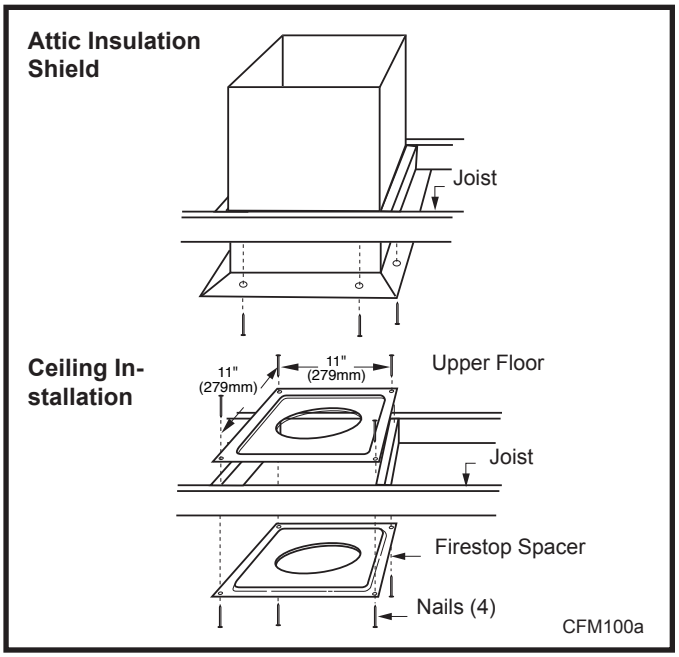


Fig. 32 Place firestop spacer(s) and secure.

7. Install roof support (Fig. 33) and roof flashing making sure upper flange of flashing is below the shingles. (Fig. 34)
8. Install appropriate pipe sections until the venting is above the flashing. (Fig. 34)
9. Install storm collar and seal around the pipe.
10. Add additional vent lengths for proper height. (Fig. 35)

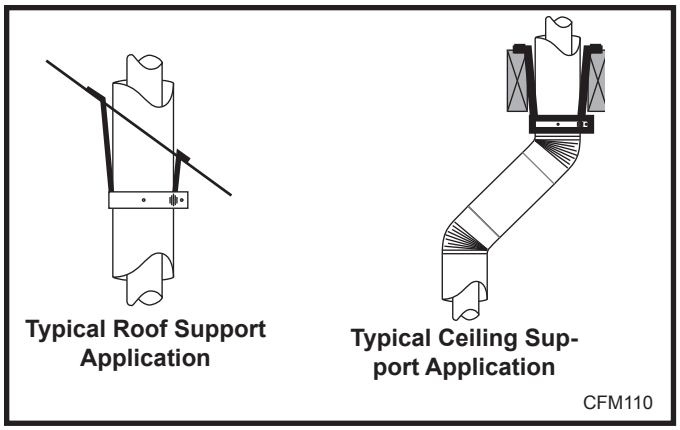


Fig. 33 Roof and ceiling supports.

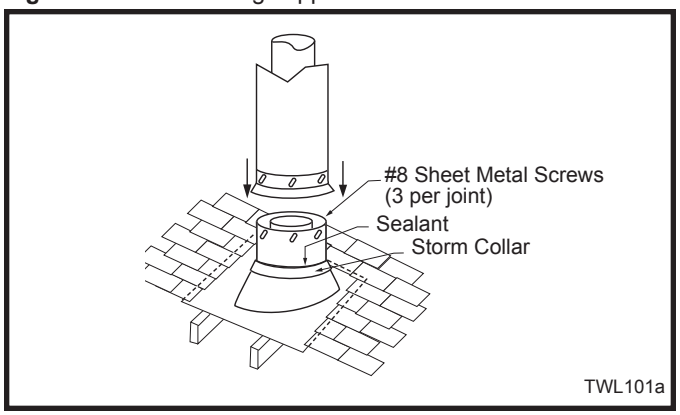


Fig. 34 Roof flashing.

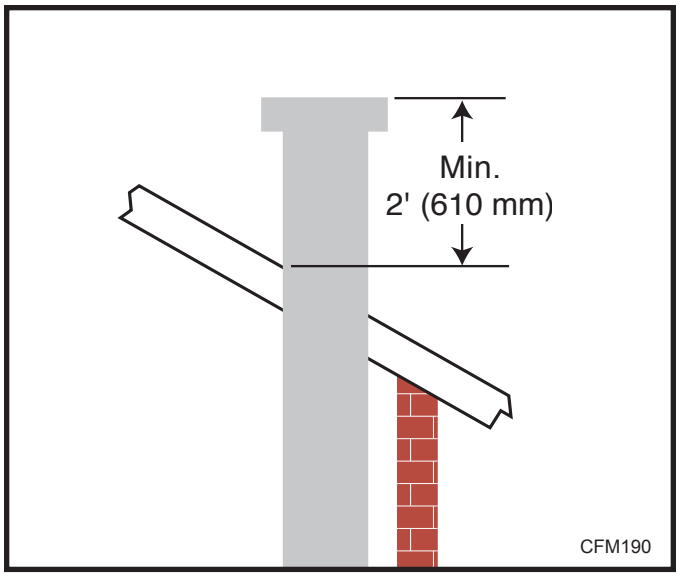


Fig. 35 Minimum termination to roof clearance.

If there is a room above ceiling level, firestop spacer must be installed on both the bottom and the top side of the ceiling joists. If an attic is above ceiling level a 7DVAIS (Attic Insulation Shield) must be installed.

The enlarged ends of the vent section always face downward. (Fig. 34)

Vertical Restrictor Plate 36LDVT, 39LDVT, 43LDVT

When installing the 36LDVT, 39LDVT or 43LDVT with a vertical through-the-roof configuration flue system, the restrictor plate (#10008048) supplied with the appliance **MUST BE FITTED TO THE APPLIANCE** at the installation.

NOTE: Do not use the restrictor plate supplied with the vertical termination cap.

1. Remove the rear log support. Save the two (2) screws.
2. Remove the two (2) nuts and save them.
3. Place the restrictor plate (Fig. 36) and secure it with the two (2) nuts.
4. Replace the rear log support to the same location as before and secure it with the screws removed in Step 1.

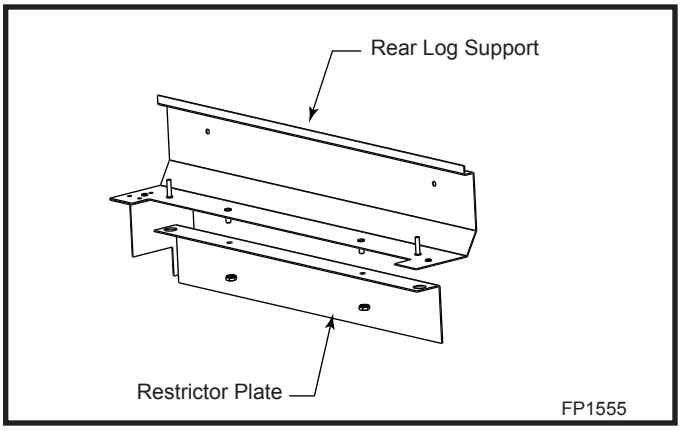
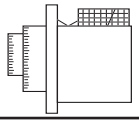
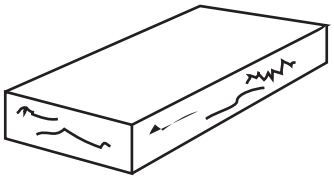
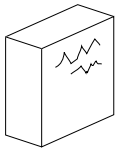
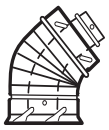
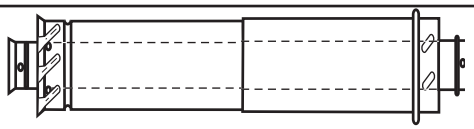
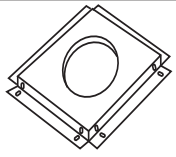
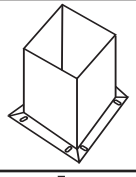


Fig. 36 Assembling the restrictor plate.

Venting Components

	7TDVRVT - Through the wall Rear Vent Termination
	Starter Kit - Model 7TDVSK - Sidewall Venting (Twist Lock Pipe) Model 7FDVSK - Sidewall Venting (Flex Vent Pipe) Models 7TDVTK/TV - Hot Touch Termination Kits Model 7TDVTVTK/TV - Cool Touch Termination Kit Starter Kit - Model 7TDVSKV - Vertical Venting for 7TDVSKV-A order 1/12 to 6/12 roof pitch for 7TDVSKV-B order 7/12 to 12/12 roof pitch for 7TDVSKV-F order flat roof Starter Kit for Below Grade Installation Model 7TDVSKS -Snorkel Kit (Twist Lock Pipe) Model 7FDVSKS -Snorkel Kit (Flex Vent Pipe)
	Starter Pipe Model 7TDVP 20/8 - 24” Starter Pipe Bulk Model 7FDVP 30/8 - 30” Flex Pipe Bulk
	45° Elbow 7TDV45 for Rear Vent to Vertical Vent or Vertical/Horizontal Offsets
	90° Transition Elbow 7TDVRT90 for Rear Vent to Vertical Vent 90° Elbow 7TDV90 Vertical/Horizontal Offset
	Telescopic vent sections 7TDVP1117 -11” to 17” adjustable length 7TDVP3567 -35” to 67” adjustable length
	Pipe sections for vertical or horizontal venting Model 7TDVP8” - 4 per box Model 7TDVP12” - 4 per box Model 7TDVP24” - 4 per box Model 7TDVP36” Model 7TDVP48”
	Firestop Spacer Model 7DVFS
	Attic Insulation Shield Model 7DVAIS
	Vertical/Horizontal Combination Offset Support Model 7DVCS

Operating Instructions

Glass Information

Only glass approved by Vermont Castings Group should be used on this fireplace.

- The use of any non-approved replacement glass will void all product warranties.
- Care must be taken to avoid breakage of the glass.
- **Do not operate appliance with glass front removed, cracked or broken.**
- **Replacement glass (complete with frame window) is available through your Vermont Castings Group dealer and should only be installed by a licensed qualified service person.**

WARNING

HOT GLASS WILL CAUSE BURNS.

DO NOT TOUCH GLASS UNTIL COOLED.

NEVER ALLOW CHILDREN TO TOUCH GLASS.

Louvre Removal

The top louvre panel is removed by lifting the panel vertically and pulling it away from the appliance. (Fig. 37)

The lower access door is hinged along the bottom edge and is folded down to allow access

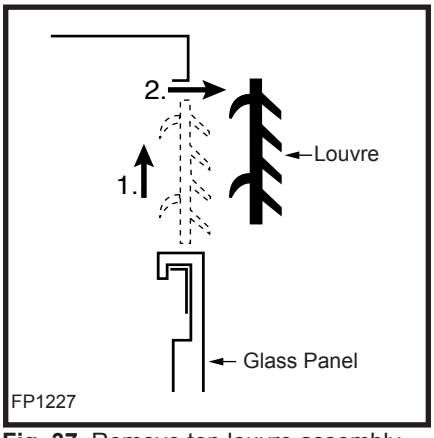


Fig. 37 Remove top louvre assembly.

Window Frame Assembly Removal

1. Turn the fireplace OFF (including the pilot)
2. If the unit has been operating allow time for the components to cool.
3. Remove the top louvre assembly.
4. Open the lower louvre panel.
5. Release the two clamps securing the lower edge of the frame by pulling down on the handles. (Fig. 38)
6. Tilt the glass frame out slightly at the bottom, lift the frame up and away from the fireplace.
7. To replace the glass frame reverse the procedure.

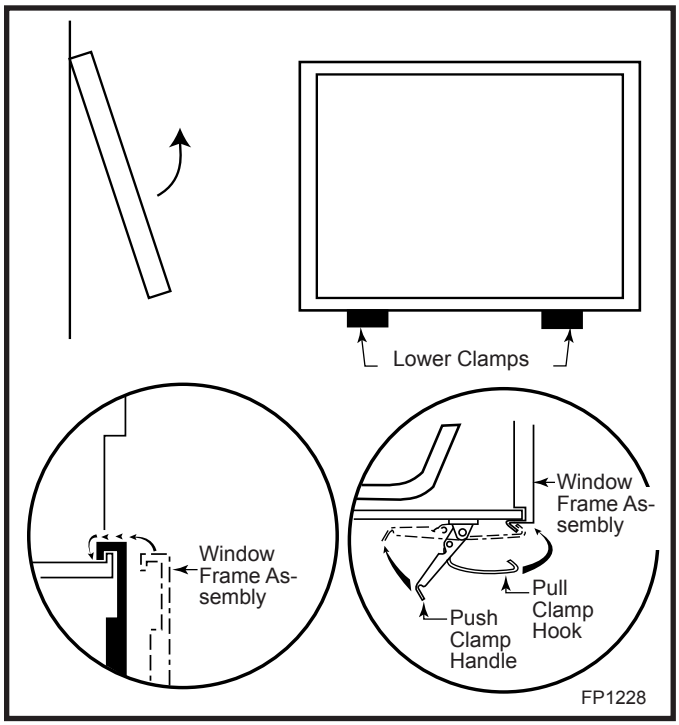


Fig. 38 Window frame assembly removal.

Glass Cleaning

It is necessary to periodically clean the glass. During start-up condensation, which is normal, forms on the inside of the glass. This condensation causes lint, dust and other airborne particles to cling to the glass surface.

Also initial paint curing may deposit a slight film on the glass. It is therefore recommended that the glass be cleaned two or three times with a non-ammonia based household cleaner and warm water (We recommend gas fireplace glass cleaner) within the first few weeks of operation.

After the initial cleaning process the glass should be cleaned two or three times during each operating season depending on the environment in the house.

Clean the glass after the first two weeks of operation.

Do not clean glass when hot.

Do not use abrasive cleaners.

Do not strike or slam glass.

Installation of Logs, Lava Rock & Ember Material

The logs are fragile and should be handled with care. Keep the packaging material out of the reach of children and dispose of the material in a safe manner.

The individual logs can be easily identified by the numbers cast on the underside of each log.

Log Identification Chart

Location	33LDVT	36LDVT	39LDVT	43LDVT
Front Left	A43	B160	BC15	BD16
Front Right	--	B159	BC16	BD17
Front Center	--	B161	B138	B138
Rear	--	B158	BC14	BD15
Rear Left	A41	--	--	--
Rear Right	A42	--	--	--
Top Center	A44	--	--	BD18

Log Installation

1. Remove the top louvre assembly.
2. Open the bottom louvre.
3. Remove the window frame assembly.
4. Remove log box from inside firebox.
5. Unpack the logs from packaging and remove each log from its wrapping material. Set aside the ember and the lava rock bags.

As with all plastic bags - these are not toys and should be kept away from children and infants.

33LDVT

1. Place rear log left (A41) on rear bracket (ensure the notch on the left end locates against the bend up on the left side of rear bracket.)
2. Place rear log right (A42) on rear bracket (ensure the notch on the right end locates against the bend up on the right side of rear bracket) and just rest the cut out from front log onto the front support.
3. Place front log left (A43). Use the log's bottom hole to locate it onto rear log left (A41) and just rest bottom cut out log onto the front support.
4. Place top log center (A44). Use the log's bottom hole to locate it onto the knob on the rear log right (A42) and the top log center rest onto rear log left.
5. Place ember material on top of burner. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 46) Do not pack the ember material. Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.
6. Scatter the lava rock material around the firebox base.

Do not place any of the lava rock material on the burner housing assembly.

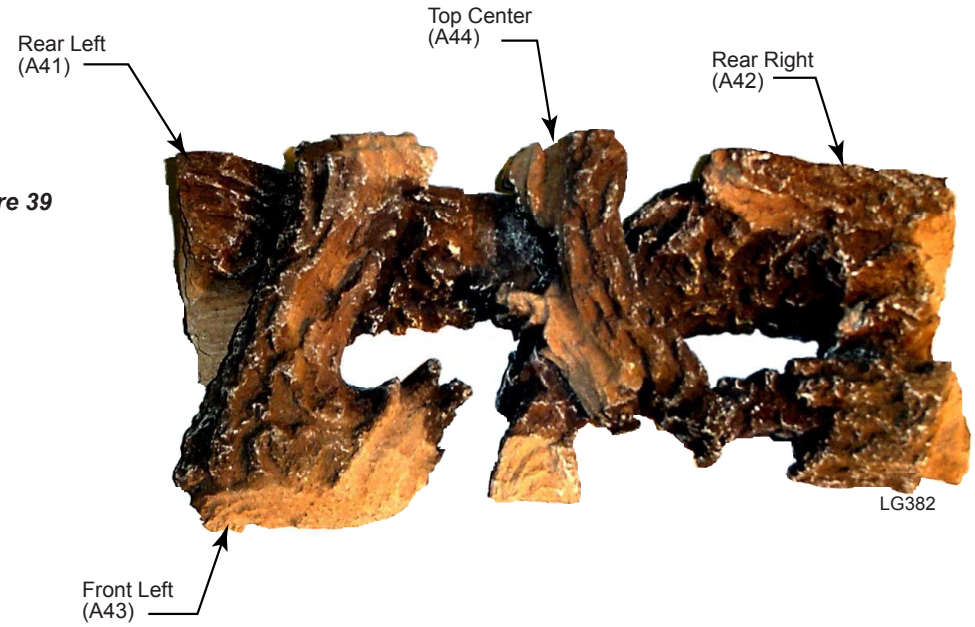


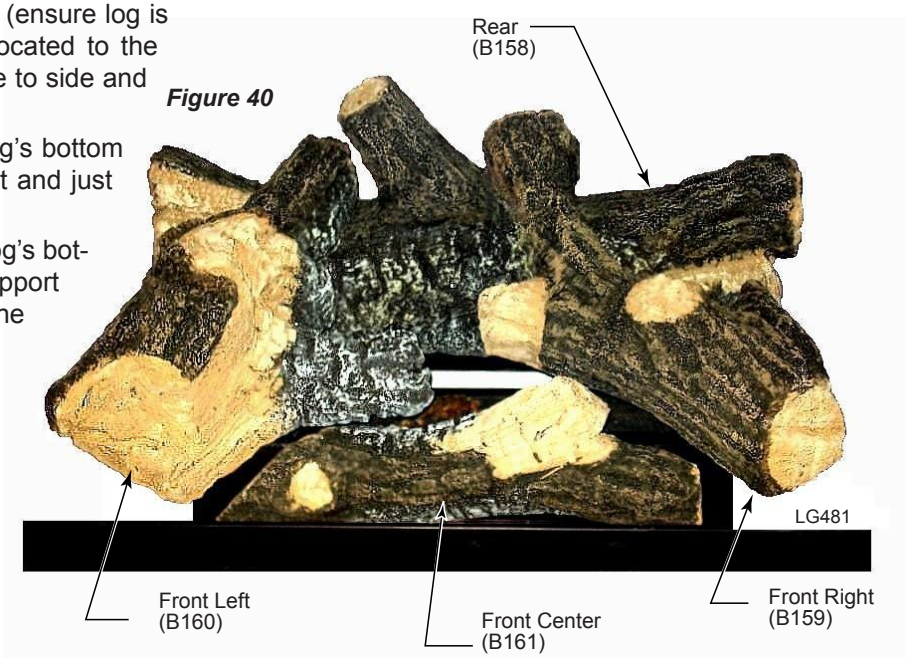
Figure 39

36LDVT

1. Place rear log (B158) on rear bracket (ensure log is seated properly to the bracket and located to the two pins), so it will not move from side to side and is firmly positioned on the bracket.
2. Place front left log (B160). Use the log's bottom hole to locate it onto the front support and just rest on top of the rear log.
3. Place front right log (B159). Use the log's bottom hole to locate it onto the front support and the top hole to the knob onto the rear log.
4. Place front center log (B161) on top of the two small shelves at the front log support and between the left and right logs.
5. Place ember material on top of burner. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 46) Do not pack the ember material. Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.
6. Scatter the lava rock material around the firebox base.

Do not place any of the lava rock material on the burner housing assembly.

Figure 40

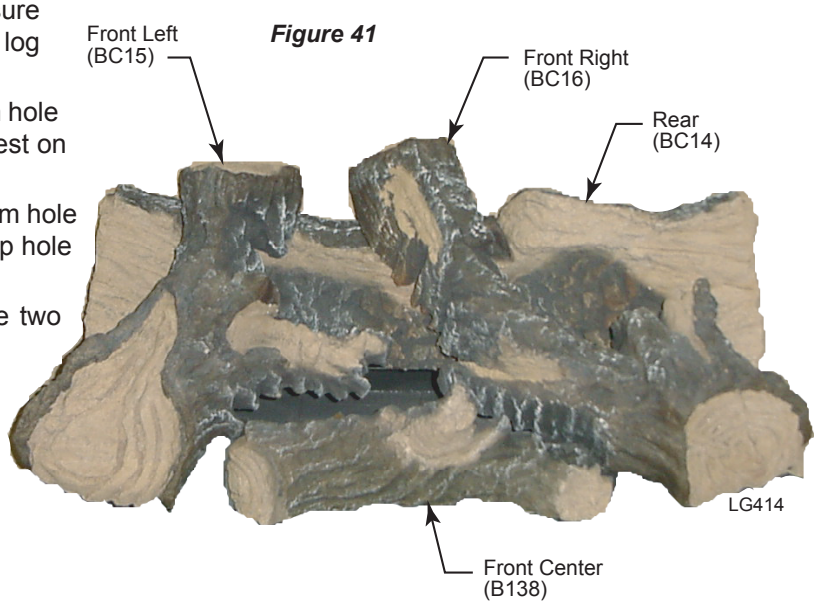


39LDVT

1. Place rear lob (BC14) on rear bracket (ensure log is centered and seated properly to the log support).
2. Place front left log (BC15). Use log's bottom hole to locate it onto the front support and just rest on top of the rear log.
3. Place front right log (BC16). Use log's bottom hole to locate it onto the front support and the top hole to the knob on the rear log.
4. Place front center log (B138) on top of the two small shelves at the front log support, and between the left and right logs.
5. Place ember material on top of burner. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 46) Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.

Do not place any of the lava rock material on the burner housing assembly.

Figure 41

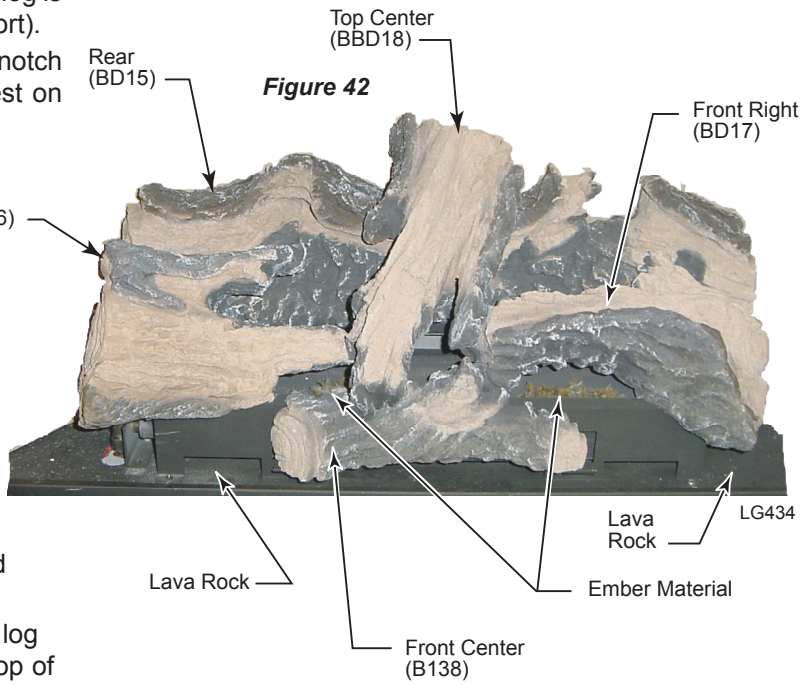


43LDVT

1. Place rear log (BD15) on rear bracket (ensure log is centered and seated properly to the log support).
2. Place front left log (BD16). Use log's bottom notch to locate it onto the front support and just rest on top of the burner housing assembly.
3. Place front right log (BD17). Use log's bottom notch to locate it onto the front support and just rest on top of the burner housing assembly.
4. Place ember material on top of burner.
5. Scatter the ember material over the tiles on the front area of the burner housing. (Fig. 42) Do not pack the ember material. Separate it when unpacked and keep it in a fluffy and loose condition for a more realistic ember effect.
6. Place front center log (B138) on top of the two small shelves at the front log support, and between the left and right logs.
7. Place top center log (BD18) on top of the rear log using the hole locator under the log and on top of front right log.
8. Scatter lava rock material round the firebox base.

Do not place any of the lava rock material on the burner housing assembly.

Figure 42



Flame & Temperature Adjustment

RN/RP & EN/EP Models

For units equipped with 'HI/LO' valves the flame adjustment is accomplished by rotating the 'HI/LO' adjustments knob located near the center of the gas control valve. (Fig. 43)

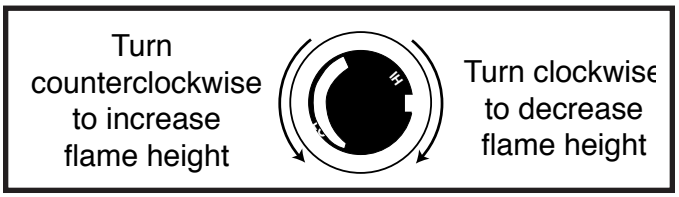


Fig. 43 Flame adjustment knob for SIT valve.

Flame Characteristics

It is important to periodically perform a visual check of the pilot and burner flames. Compare them to Figures 44 and 45.

If the flame patterns appear abnormal contact a qualified service provider for service and adjustment.

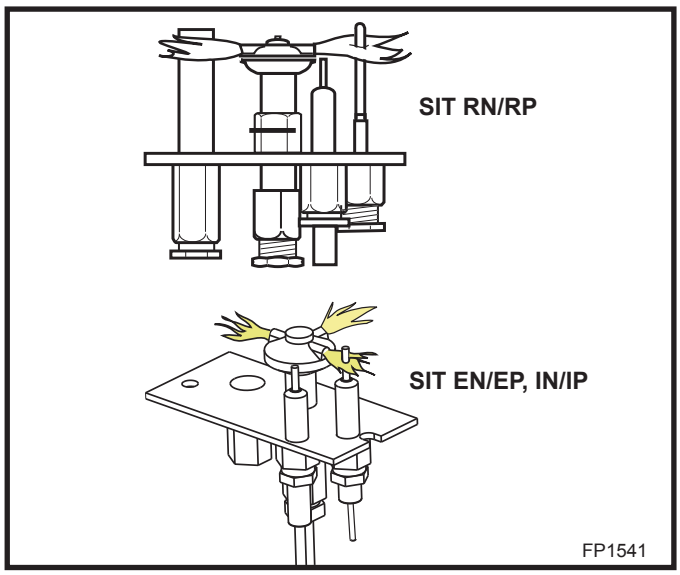
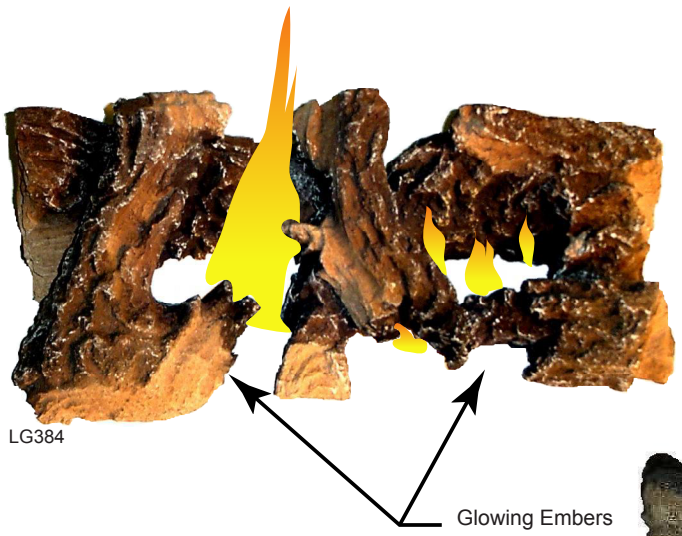
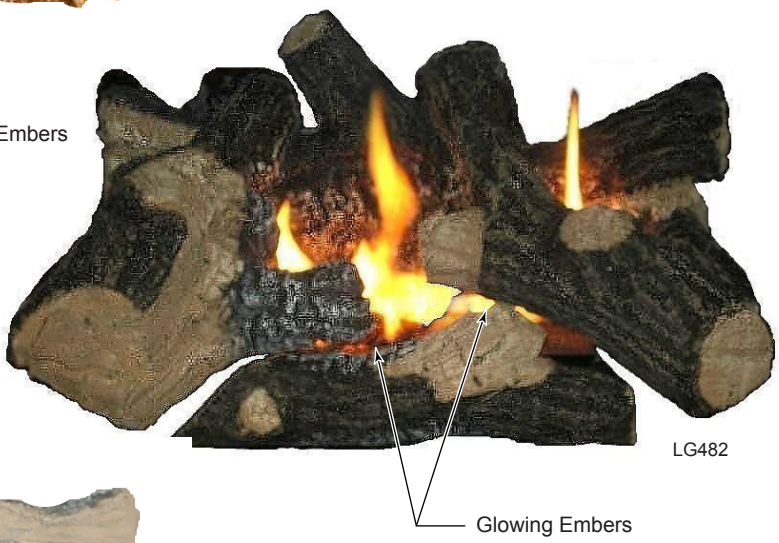


Fig. 44 Correct pilot flame appearance.

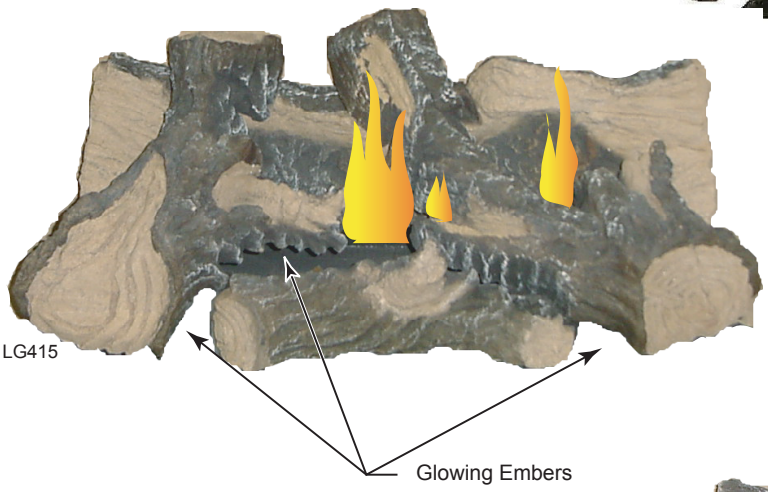


33LDVT

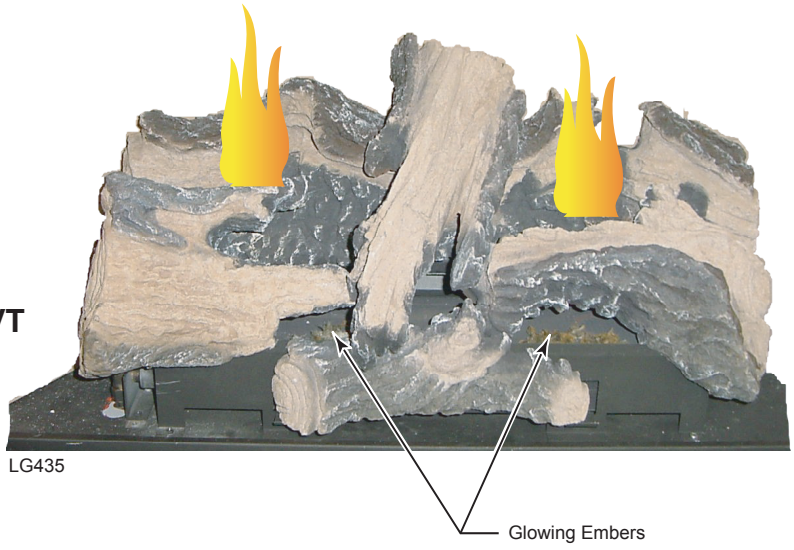
Figure 45



36LDVT



39LDVT



43LDVT

Lighting and Operating Instructions

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING:If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This heater has a pilot which must be lit manually. When lighting the pilot follow these instructions exactly.

B. BEFORE LIGHTING smell all around the heater area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- **Do not try to light any fireplace**
- **Do not touch any electric switch**
- **Do not use any phone in your building**
- **Immediately call your gas supplier from a neighbor's phone.**

Follow the gas supplier's instructions.

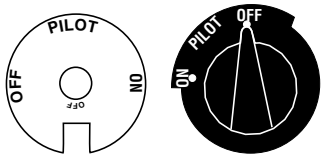
- **If you cannot reach your gas supplier, call the Fire Department**

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to repair it, call a qualified service technician. Applying force or any attempted repair may result in a fire or explosion.

D. Do not use this fireplace if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.

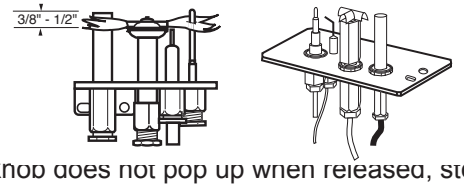
Lighting Instructions

1. **STOP!** Read the safety information above.
2. Turn off all electrical power to the fireplace.
3. Turn the ON/OFF switch to "OFF" position.
4. Open control access panel.
5. Push in gas control knob slightly and turn clockwise to "OFF".



SIT NOVA **Honeywell**

6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you do not smell gas, go to the next step.
7. Remove glass door before lighting pilot. (See Glass Frame Removal section).
8. Visibly locate pilot by the main burner.
9. Turn knob on gas control counterclockwise to "PILOT".
10. Push the control knob all the way in and hold. Immediately light the pilot by repeatedly depressing the piezo spark ignitor until a flame appears. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 8.



- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
- If after several tries, the pilot will not stay lit, turn the gas control knob to "OFF" and call your service technician or gas supplier.

11. Replace glass door.
12. Turn gas control knob to "ON" position.
13. Turn the ON/OFF switch to "ON" position or set thermostat to desired setting.
14. Turn on all electrical power to the fireplace.

To Turn Off Gas To Heater

1. Turn the ON/OFF switch to Off position.
2. Turn off all electric power to the fireplace if service is to be performed.
3. Open control access panel.
4. Push in gas control knob slightly and turn clockwise to "OFF". Do not force.
5. Close control access panel.

Lighting and Operating Instructions

For Fireplaces equipped with SIT822 Gas Valve (EN or EP)
WARNING:
If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury and loss of life.

FOR YOUR SAFETY READ THE FOLLOWING WARNINGS BEFORE LIGHTING THE APPLIANCE

A. This fireplace is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.

B. BEFORE OPERATING, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than the air and will settle on the floor.

What to do if you smell gas

- **Do not try to light any appliance**
- **Do not operate any electrical switch.**
- **Do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone.**

Follow the gas suppliers instructions.

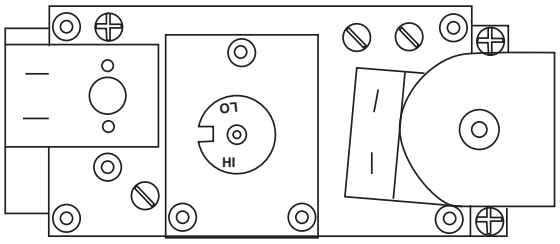
- **If you cannot contact your gas supplier call the Fire Department**

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand do not try to repair it, call a qualified service technician. Force or attempting repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control that has been under water.

Lighting Instructions

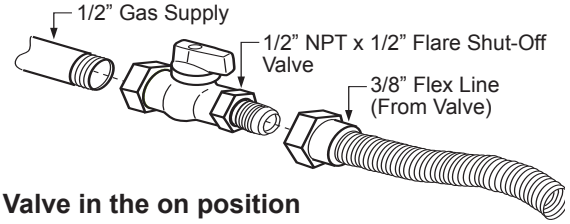
1. **STOP!** Read the safety information above before continuing.
2. Turn off all electrical power to the appliance.
3. This appliance is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.
4. Access the gas control by lowering the lower access door (louvre assembly).



5. Turn the remote switch, if used, OFF. Turn the wireless remote, if used, OFF.
6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas STOP. Follow instructions B in the safety warnings above. If you do not smell gas go onto the next step.
7. Close the access door.
8. Turn ON all electrical power to the appliance.
9. Turn remote switch or wireless remote to "ON".
10. If the appliance will not operate, follow the instructions TURNING OFF THE GAS TO THE APPLIANCE and call your service technician or gas supplier.

Turning Off the Gas to the Appliance

1. Turn the remote switch to the "OFF" position.
2. Turn OFF all electrical power to the fireplace if service is required.
3 Open the lower access panel.
4. Turn the shut-off valve on the flexible gas line to the "OFF" position.



Valve in the on position

Lighting & Operating Instructions

For Fireplaces equipped with AF4000 Gas Valve

Warning

If you do not follow these instructions exactly, a fire or explosion may result, causing property damage, personal injury and loss of life.

For Your Safety, Read the Following Warnings before Lighting the Appliance

A. This fireplace is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.

B. **BEFORE OPERATING**, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than the air and will settle on the floor.

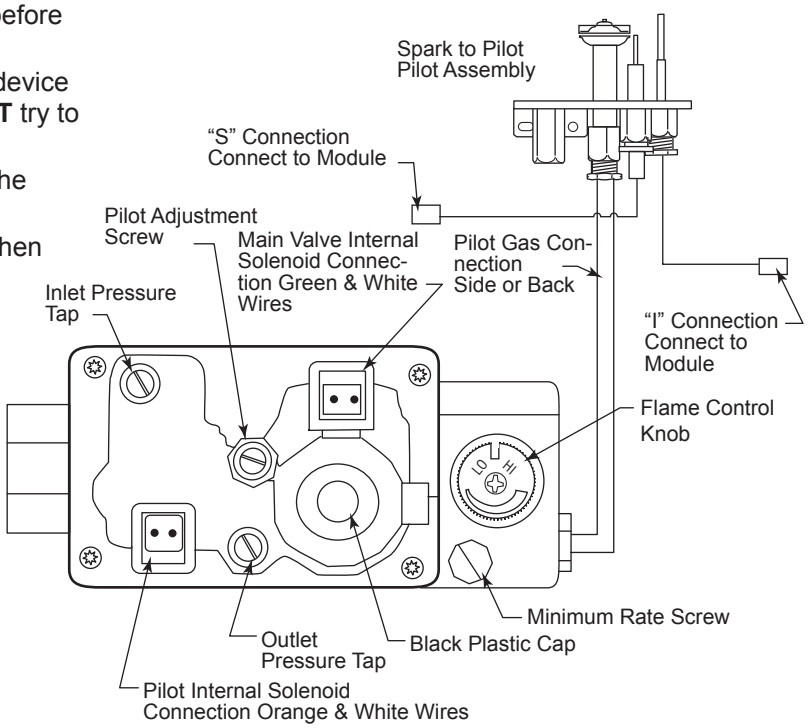
What to do if you smell gas

- **Do not try to light any appliance.**
- **Do not operate any electrical switch.**
- **Do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions.**
- **If you cannot contact your gas supplier call the Fire Department**

C. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control that has been under water.

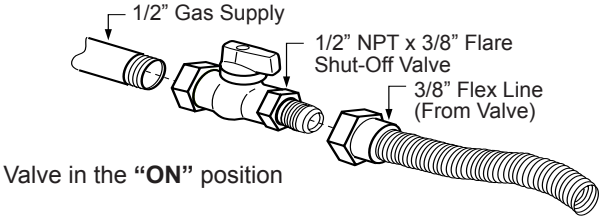
Lighting Instructions

1. **STOP!** Read the safety information above before continuing.
2. This appliance is equipped with an ignition device which automatically lights the pilot. **DO NOT** try to light the pilot by hand.
3. Turn the remote switch, if used, OFF. Turn the wireless remote, if used, OFF.
4. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP. Follow instruction B in the safety warnings above. If you do not smell gas, go on to the next step.
5. Turn on electrical power to the appliance.
6. Turn remote switch or wireless remote to ON.
7. If the appliance will not operate, follow the instructions TURNING OFF THE GAS TO THE APPLIANCE, and call your service technician or gas supplier.



Turning Off the Gas to the Appliance

1. Turn the remote switch to the OFF position.
2. Turn OFF all electrical power to the fireplace if service is required.
3. Open the lower access panel.
4. Turn the shut-off valve on the flexible gas line to the OFF position.



Troubleshooting the Gas Control System

SIT NOVA 820 Millivolt Valve

NOTE: Before trouble shooting the gas control system, be sure external gas shut off is in the "On" position.

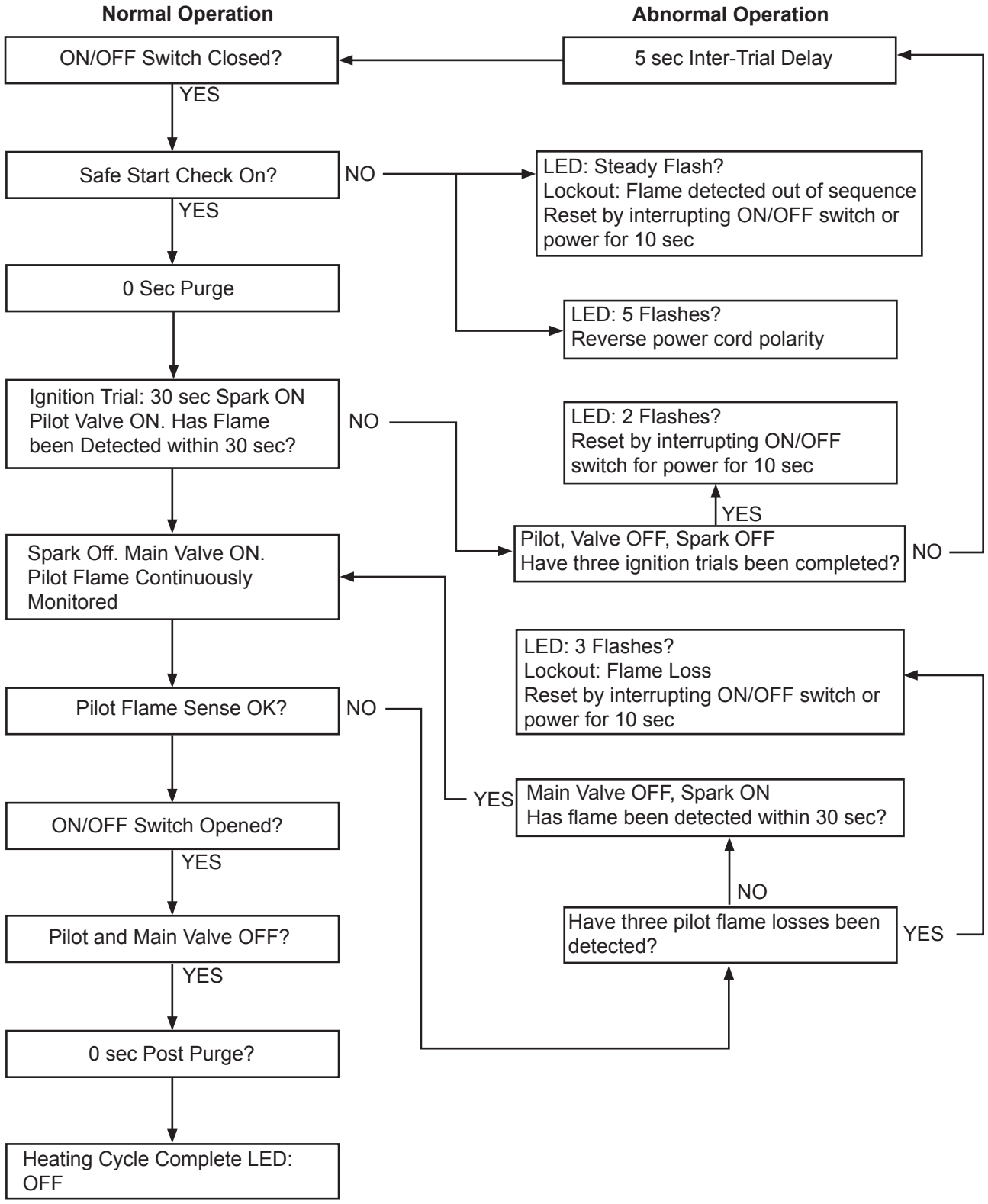
WARNING: Before doing any gas control service work, remove glass front.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
1. Spark ignitor will not light	A. Defective or misaligned electrode at pilot.	Using a match, light pilot. If pilot lights, turn off pilot and push the red button again. If pilot will not light - check gap at electrode and pilot- should be 1/8" to have a strong spark.
	B. Defective ignitor (Push button)	Push Piezo Ignitor Button. Check for spark at electrode and pilot. If no spark to pilot, and electrode wire is properly connected, replace ignitor.
2. Pilot will not stay lit after carefully following lighting instructions.	A. Defective pilot generator (thermocouple), remote wall switch	Check pilot flame. Must impinge on thermocouple/thermopile. Note: this pilot burner assembly utilizes both-a thermocouple and a thermopile. The thermocouple operates the main valve operation (On and Off). Clean and or adjust pilot for maximum flame impingement on thermopile and thermocouple.
	B. Defective automatic valve	Turn valve knob to "Pilot". Maintain flow to pilot; milivolt meter should read greater than 10 mV. If the reading is okay and the pilot does not stay on, replace the gas valve. Note: An interrupter block (not supplied) must be used to conduct this test.
3. Pilot burning, no gas to main burner	A. Wall switch or wires defective	Check wall switch and wires for proper connections Jumper wire accross terminals at wall switch, if burner comes on, replace defective wall switch. If okay, jumper wires across wall switch wires at valve, if burner comes on, wires are faulty or connections are bad.
	B. Thermopile may not be generating sufficient millivoltage	1. Be sure wire connections from thermopile at gas valve terminals are tight and thermopile is fully inserted into pilot bracket. 2. One of the wall switch wires may be grounded. Remove wall switch wires from valve terminals if pilot now stays lit, trace wall switch wiring for ground. May be grounded to fireplace or gas supply. 3. Check thermopile with millivolt meter. Take reading at thermopile terminals of gas valve. Should read 250-300 millivolts (minimum 150) while holding valve knob depressed in pilot position and wall switch "Off". Replace faulty thermopile if reading is below specified minimum.
	C. Plugged burner orifice.	Check burner orifices for debris and remove.
	D. Defective automatic valve operator.	Turn valve knob to "On", place wall switch to "On" millivolt meter should read greater than 100 mV. If the reading is okay and the burner does not come on, replace the gas valve.
4. Frequent pilot outage problem.	A. Pilot flame may be too low or blowing (high) causing the pilot safety to drop out.	Clean and/or adjust pilot flame for maximum flame impingement on thermopile and thermocouple.
	B. Possible blockage of the vent terminal.	Check the vent terminal for blockage (recycling the flue gases)

Troubleshooting the Gas Control System

SIT 822 Valve with Synetek Electronic Control

Operating Diagram



Troubleshooting

American Flame Gas Control System

If erratic system behavior is observed that cannot be resolved by the methods outlined below, ensure that there is not a transmitter with batteries installed that may be interfering. If a transmitter is packed with batteries installed, its buttons may be depressed sending a constant signal which can interfere with the transmission of desired signals. A transmitter with new batteries can have a range of over 100' (30.4 m). (Page 10, Fig. 10)

Fireplace will not light	• Ensure the REMOTE/OFF switch on the side of the module (Fig. 46) is set to OFF. • Make sure the leads from the AC power adapter are securely connected to the POWER terminals on the control module and 120V AC power is available. (Fig. 47) • Make sure the remote wall switch is wired correctly.
Pilot will not light/stay lit	• Verify the gas supply is turned on. • Ensure the orange lead from the pilot assembly igniter is securely connected to the terminal labeled "I" and the white lead from the flame rectification sensor is securely connected to the terminal labeled "S" on the control module. (Fig. 46) • Make sure the orange and white leads from the module are securely connected to the terminals labeled "PILOT" on the valve body. (Fig. 48) • Ensure the black GROUND wire is securely connected to an appropriate metal portion of the valve or pilot assembly. **A proper ground is essential to spark igniter operation.** • Make certain the pilot flame is in contact with the flame rectification sensor on the pilot assembly. This valve is equipped with a pilot flame adjustment screw. (Fig. 48) If the pilot flame is too small it will not contact the flame rectification sensor and will not complete the safety circuit. • Check continuity of pilot coil on valve. Remove wire connector. If there is no continuity on pin terminals, replace valve.
Pilot flame is always on/ will not extinguish	• Ensure the CONTINUOUS PILOT switch on the control module (Fig. 46) is set to OFF.
Main flame will not light	• Verify the gas supply is turned on. • Ensure the pilot flame will ignite. If not, see pilot flame troubleshooting above. • Make sure the green and white leads from the module are securely connected to the terminals labeled "MAIN: on the valve body. (Fig. 48) • Make certain the pilot flame is in contact with the flame rectification sensor on the pilot assembly. This valve is equipped with a pilot flame adjustment screw. (Fig. 48) If the pilot flame is too small it will not contact the flame rectification sensor and will not complete the safety circuit. • Ensure the pilot flame is properly located to ignite the main flame. • Check continuity of main burner coil in gas valve. Remove wire connector. If there is no continuity, replace valve.

Troubleshooting American Flame Gas Control System (continued)

Figure 46: AF4000 MOD Module Right Side

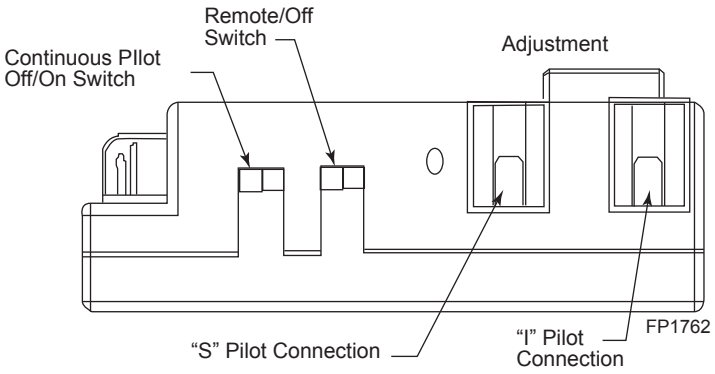


Figure 47: AF4000 MOD Module End

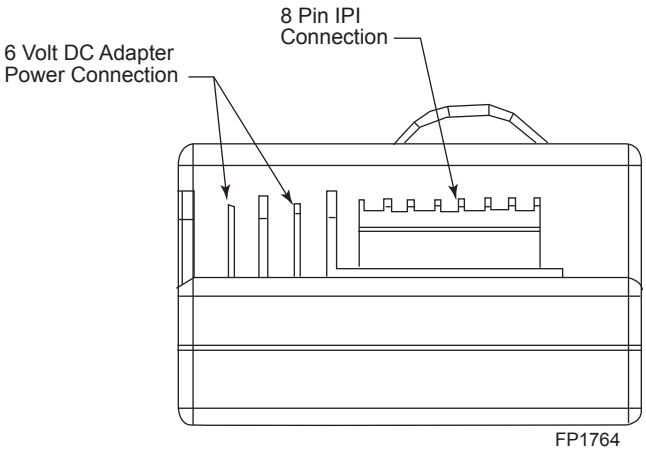
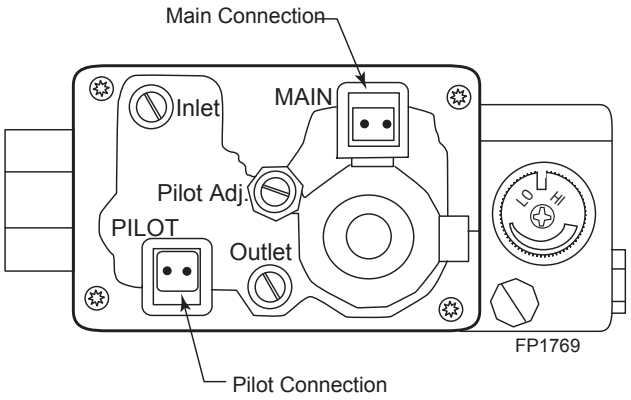


Figure 48: AF4000 Valve Face



American Flame Gas Control System Error Codes

Ignition Safety: Protection for Ignition System

Error Code: One beep every one second

Description of Fault: Warn users if the pilot is not successfully ignited in 60 seconds.

How to Clear: Switch OFF then ON to re-attempt ignition.

What to Check:

- Ensure gas supply is turned on.
- Ensure orange/white leads from module are plugged into the “PILOT” connection on the valve body.
- Verify the lead from igniter on pilot assembly is connected to the “I” terminal on the module.
- Verify lead from flame sensor on pilot assembly is connected to the “S” terminal on the module.
- Verify that the black ground lead form the module is connected to a proper ground on the fireplace.
- Ensure there is no blockage in the pilot line.

Sensor Safety: Protection for Flame Sensor

Error Code: 4 beeps every one second

Description of Fault: Warn users the pilot flame sensor detects a pilot flame already present when ignition sequence is initiated. This fault will also occur if pilot flame sensor is shorted to ground.

How to Clear: Switch OFF then ON to re-attempt normal ignition.

What to Check:

- Check if pilot flame is actually present when valve is turned OFF (valve replacement necessary if yes).
- Replace pilot assembly.
- Replace module.

Thermal Safety: Overheat Protection

Error Code: 4 beeps every two seconds.

Description of Fault: Warn users that the module’s internal temperature has exceeded 170° F (77° C).

How to Clear: Turn off fireplace. The module’s internal temperature must cool to below 160° F (71° C). Then switch to ON.

What to Check:

- Is module located in unapproved location, too close to burner?
- Move to cooler location.

Converting the Appliance From LP to Natural Gas or Natural Gas to LP

The conversion of this appliance from one gas to another must be carried out by an authorized service provider.

The procedure for converting from one gas to another is the same regardless of the initial gas used. The only variation is in the orifice-sizes and component part numbers. Your authorized service provider will ensure the correct parts are used.

1. Disconnect power to unit and shut off gas supply.
2. Remove window frame assembly.
3. Carefully remove the logs & lava rock material.
4. Remove the screws that are holding the burner housing assembly in place.
5. Remove the burner housing assembly. Depending on the model of the appliance you may have to loosen the pilot bracket retaining screw/nut to allow the pilot and bracket assembly to tilt and give enough clearance to remove the burner housing assembly.
6. **For Model 36LDVT ONLY:** Remove the rear log support and relocate the two (2) screws that locate the rear log as shown in Figure 49.

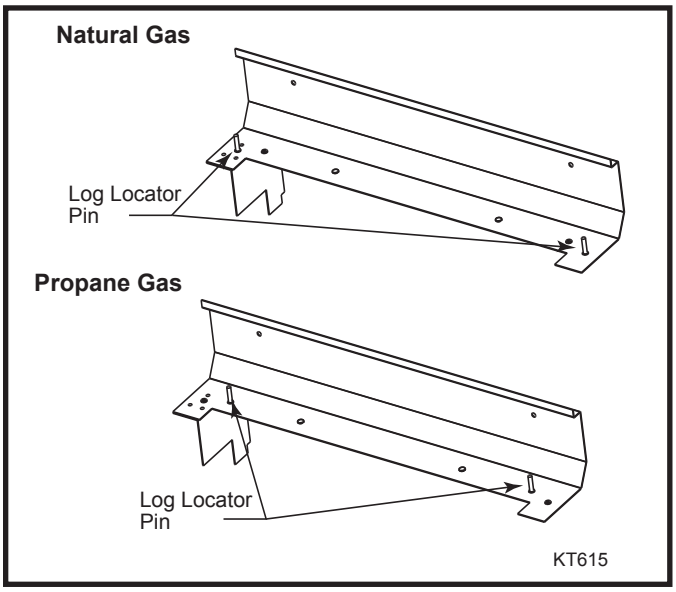


Fig. 49 Move log locator pins to new locations on rear log support.

7. Remove the main burner orifice and replace it with the orifice supplied in the conversion kit.

Pilot Orifice Conversion

SIT Top Convertible Pilot

Gently lift off the pilot hood from the pilot. (Do not remove the spring clip holding the hood in place). Using a 5/32" Allen key, unscrew the exposed orifice. Insert the new orifice supplied in the kit, do not over tighten the orifice. Replace the pilot hood ensuring the index tab aligns with the notch on the hood.

PSE Pilot

Using a suitable wrench on the hexagonal body unscrew the pilot hood assembly from the pilot, do not twist the hood itself. Remove the orifice and replace it with the new orifice supplied in the kit. Refit the pilot hood assembly. Do not over-tighten the pilot hood. The hood must return to its original alignment. Take care not to damage the thermocouple, thermopile or igniter.

Valve Conversion

SIT 820 NOVA Gas Control Valve (Fig. 50)

1. Using a Torx T20 or slotted screwdriver, remove and save the three pressure regulator mounting screws (A), pressure regulator tower (B) and diaphram (C).

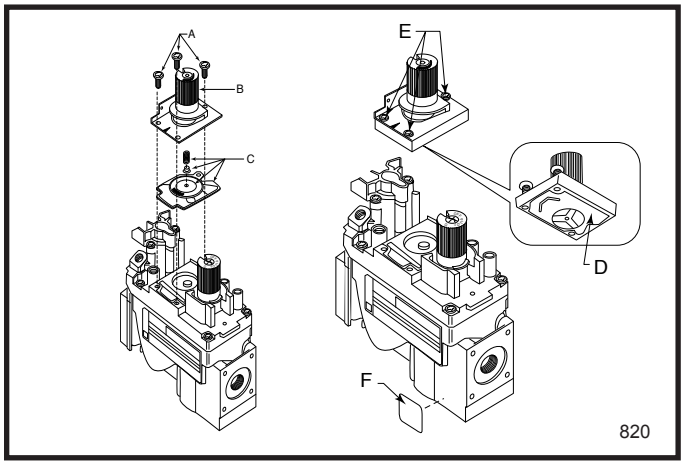


Fig. 50 Nova SIT 820 gas valve.

2. Ensure the rubber gasket (D) is properly positioned and install the new HI/LO pressure regulator to the valve using the new screws (E) supplied with the kit. Tighten screws securely. (Reference torque - 25 in.LB)
3. Install the enclosed identification label (F) to the valve body where it can be easily seen.

AF4000 Gas Control Valve

The AF4000 electronic control valve is convertible from natural gas to propane gas by changing the minimum rate screw in the valve and by rotating a plastic knob located under a black cap on the top face of the valve.

1. Remove the black cap by pulling the cap straight off. Note the position of the marker on the top of the rotary knob. This marker will point to NAT or LP. (Fig. 51)
2. To convert the valve from NG to LP, push in the knob and rotate 90° (1/4 turn). **NOTE:** The shaft should point to LP and the shaft will remain pushed in.
3. Remove the minimum rate screw, using a small screwdriver, located in the valve next to the motor drive. (Fig. 51)
4. Replace the minimum rate screw with the new minimum rate screw supplied in the conversion kit. Ensure the screw is fully installed. Replace plug.

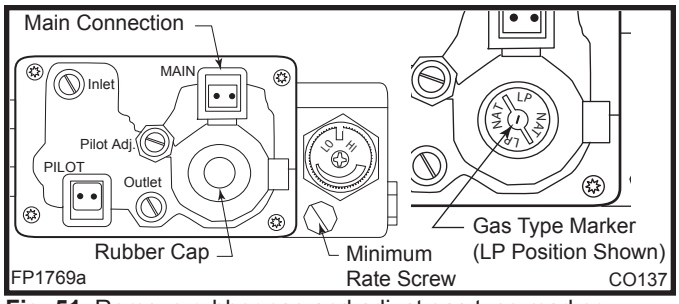


Fig. 51 Remove rubber cap and adjust gas type marker.

5. Turn on gas supply and check that plugs are tight and leak free.
6. Install the enclosed identification label to the valve body where it can easily be seen.

Conversion is complete.

1. Reassemble the fireplace in the reverse order, except for the window frame assembly. Leave this off until after the unit has been checked for leaks and the gas supply has been bled.
2. After bleeding the gas line and checking for leaks with a soap solution, replace the window frame assembly. Fire up the unit, check for flame impingement on the logs, adjusting them if necessary. Check the manifold and supply pressures against the appliance specifications.

Maintenance

Burner and Burner Compartment

It is important to keep the burner and the burner compartment clean. At least once per year the logs and lava rock/ember material should be removed and the burner compartment vacuumed and wiped out. Remove and refit the logs as per the instructions in this manual.

Always handle the logs with care as they are fragile and may also be hot if the fireplace has been in use.

FK24/FK12 Fan Assembly

The fan unit requires periodic cleaning. At least once per month in the operating season open the lower louvre panels and wipe or vacuum the area around the fan to remove any build up of dust or lint.

Brass Trim

Clean the brass trim pieces using a soft cloth lightly dampened with lemon oil. Do not use water or household cleaners on any brass components.

Cleaning the Standing Pilot Control System

The burner and control system consist of:

- burner
- gas orifice
- pilot assembly
- thermopile
- millivolt gas valve

Most of these components may require only an occasional checkup and cleaning and some may require adjustment. **If repair is necessary, it should be performed by a qualified technician.**

1. Turn off pilot light at gas valve.
2. Allow fireplace to cool if it has been operating.
3. Remove window frame assembly. (Refer to Window Frame Assembly Removal section.)
4. Remove logs.
5. Vacuum burner compartment especially around orifice primary air openings.
6. Visually inspect pilot. Brush or blow away any dust or lint accumulation.
7. Reinstall logs.
8. Ignite pilot - Refer to Lighting Instructions.
9. Reinstall window frame assembly.

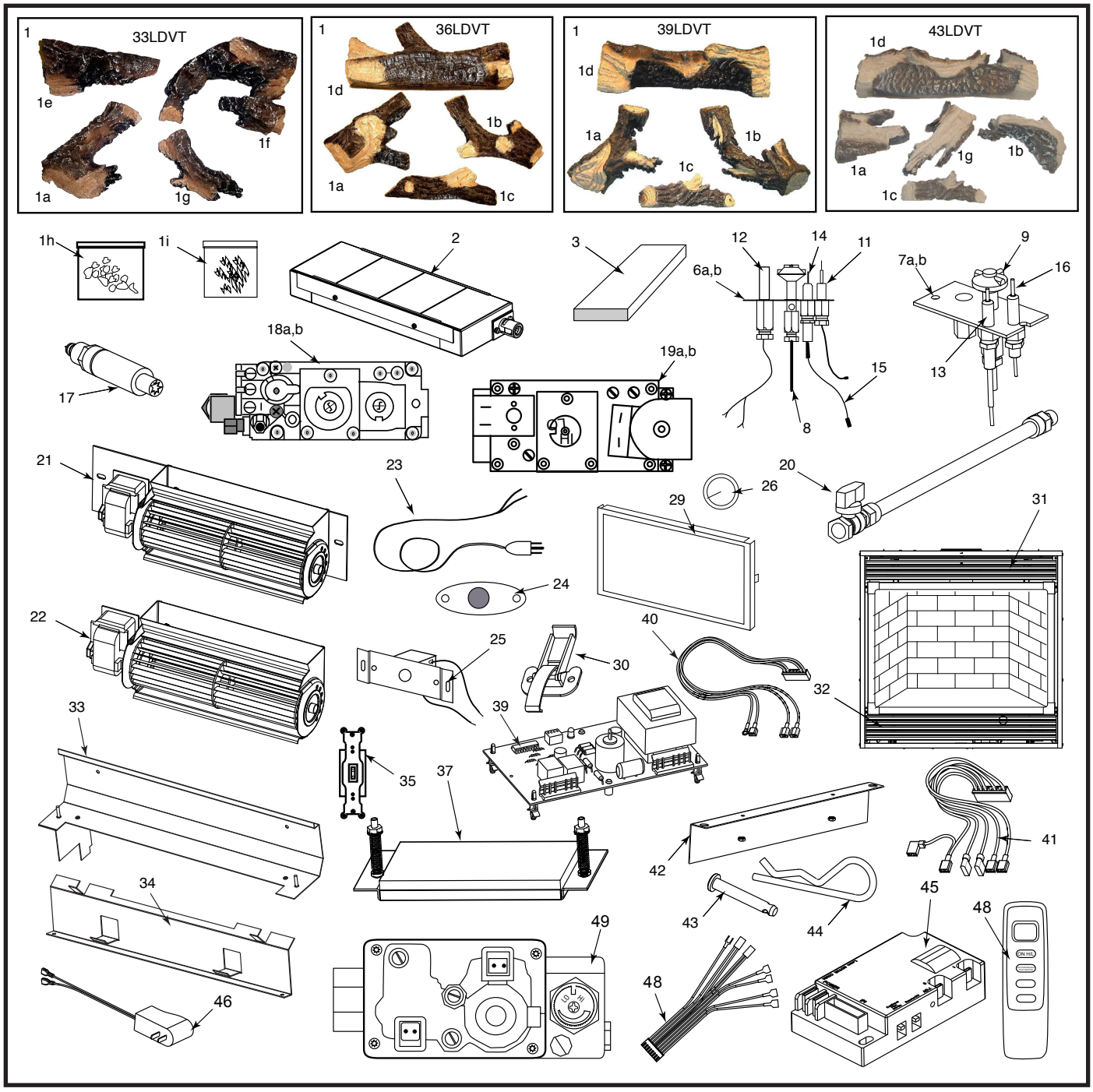
To obtain proper operation, it is imperative that the pilot and burner's flame characteristics are steady, not lifting or floating.

Typically, the top 3/8" to 1/2" of the thermopile should be engulfed in the pilot flame. (Refer to Page 26, Figure 44)

To adjust pilot burner: (by qualified service technician)

1. Remove pilot adjustment cap
2. Adjust pilot screw to provide properly sized flame.
3. Replace pilot adjustment cap.

The primary air shutter is set at factory and should only be adjusted, if necessary, by a qualified service technician.



Vermont Castings Group reserves the right to make changes in design, materials, specifications, prices and discontinue colors and products at any time, with out notice.

33/36/39/43LDVT

33LDVT units: GFTN2I0, GFTL2I0, GFTE2I0, GFTI3I0
36LDVT units: GFTN2J1, GFTL2J1, GFTE2J1, GFTI3J0
39LDVT units: GFTN2K0, GFTE2K0, GFTI3K0
43LDVT units: GFTN2N0, GFTE2N0

33/36/39/43LDVT (continued)

Ref.	Description	33LDVT	36LDVT	39LDVT	43LDVT
1.	Log Set (complete)	10007567	10010113	10008214	10008314
1a.	Front Left Log	A43	B160	BC15	BD16
1b.	Front Right Log	--	B159	BC16	BD17
1c.	Front Center Log	--	B161	B138	B138
1d.	Rear Log	--	B158	BC14	BD15
1e.	Rear Left Log	A41	--	--	--
1f.	Rear Right Log	A42	--	--	--
1g.	Top Center Log	A44	--	--	BD18
1i.	Lava Rock Package	10001454	10001454	10001454	10001454
1k.	Ember (Package)	51915	51915	51915	51915
2a.	Burner Housing Assy - Natural	10007558	10007127	10008218	10008464
2b.	Burner Housing Assy - Propane	10007558	10008042	10008586	10008587
3.	Ceramic Tile (Single)	57803	57803	57803	57803
4a.	Orifice Burner - Natural	Refer to Rating Plate for Orifice Size			
4b.	Orifice Burner - Propane	Refer to Rating Plate for Orifice Size			
5a.	Orifice Pilot - Natural	10002268	10002268	10002268	10002268
5b.	Orifice Pilot - Propane	10002269	10002269	10002269	10002269
6a.	Pilot Assy SIT - RN	10002264	10002264	10002264	10002264
6b.	Pilot Assy SIT - RP	10002265	10002265	10002265	10002265
7a.	Pilot Assy SIT - EN	10002387	10002387	10002387	10002387
7b.	Pilot Assy SIT - EP	10002388	10002388	10002388	10002388
8.	Pilot Tubing w/Fittings SIT	10001296	10001296	10001296	10001296
9.	Pilot Hood	10002385	10002385	10002385	10002385
10.	Manifold Tubing w/Fittings	57318	57318	57318	57318
11.	Thermocouple - RN/RP	53373	53373	53373	53373
12.	Thermopile - RN/RP	51827	51827	51827	51827
13.	Electrode Ignitor w/Cable -RN/RP	10001297	10001297	10001297	10001297
14.	Electrode Ignitor - EN/EP	52465	52465	52465	52465
15.	Cable Ignitor - EN/EP	10000696	10000696	10000696	10000696
16.	Sensing Electrode - EN/EP	57885	57885	57885	57885
17.	Ignitor Piezo, SIT 820 Valve	52464	52464	52464	52464
18a.	Valve SIT 820 - RN	52677	52677	52677	52677
18b.	Valve SIT 820 - RP	52678	52678	52678	52678
19a.	Valve SIT 822 - EN	57884	57884	57884	57884
19b.	Valve SIT 822 - EP	57883	57883	57883	57883
20.	Flexible Gas Line w/ON/OFF Shut-off Valve	20002500	20002500	20002500	20002500
21.	Fan Assy (w/Brkt) (FK24 Option)	ZA1100	ZA1100	ZA1100	ZA1100
22.	Fan Assy (FK12 Option)	ZA1110	ZA1110	ZA1110	ZA1110
23.	Electrical Cord (6 ft.)	51865	51865	51865	51865
24.	Fan Temperature Sensor (FK24)	51704	51704	51704	51704
25.	Speed Control (FK24)	51738	51738	51738	51738
26.	Speed Control Knob (FK24)	51882	51882	51882	51882
29.	Frame Window w/glass	10009693	10009694	10009695	10008535
30.	Clamp Frame Window	54174	54174	54174	54174
31.	Top Louvre Assy	10007400	10007090	10007984	10008311
32.	Bottom Louvre Assy	10007397	10007092	10007986	10008307

33/36/39/43LDVT (continued)

Ref.	Description	33LDVT	36LDVT	39LDVT	43LDVT
33a.	Support Rear Log - Natural	10007561	10007162	10008211	10008480
33b.	Support Rear Log - LP	10007561	10008045	10008211	10008490
34.	Support Front Log	10007562	10007112	10008416	10008469
35.	ON/OFF Switch	51842	51842	51842	51842
37.	Relief Plate Assy (Burner Base)	10004192	10004192	10004192	10004192
38.	Remote Switch Kit (Not Shown)	53875	53875	53875	53875
39.	Ignition Control from Synetek (EN)	10007939	10007939	10007939	10007939
40.	Wire Harness (EN) Synetek (low voltage)	10008139	10008139	10008139	10008139
41.	Wire Harness (EN) Synetek (high voltage)	10008140	10008140	10008140	10008140
42.	Restrictor Plate	--	10008048	10008048	10008048
43.	Clevis Pin	10008615	10008615	10008615	10008615
44.	Clip Pin Hitch	10008616	10008616	10008616	10008616
45.	Main Module (IN)	20011895	20011895	20011895	n/a
46.	AC Adaptor (IN)	20011900	20011900	20011900	n/a
47.	24” Wire Harness (IN)	20012258	20012258	20012258	n/a
48.	Remote Control (IN)	20011904	20011904	20011904	n/a
49.	American Flame Valve AF-4010-IN Assy	20013151	20013151	20013151	n/a

Fuel Conversion Kits

Conversion Kit, NG to LP

33LDVTRN/EN	Kit # 10008233
33LDVTIN	Kit # 20014312
36LDVTRN/EN	Kit # 10008235
36LDVTIN	Kit # 20014313
39LDVTRN/EN	Kit # 10008237
39LDVTIN	Kit # 20014314
43LDVTRN/EN	Kit # 10008239

Conversion Kit, LP to NG

33LDVTRP/EP	Kit # 10008234
33LDVTIP	Kit # 20014315
36LDVTRP/EP	Kit # 10008236
36LDVTIP	Kit # 20014316
39LDVTRP/EP	Kit # 10008238
39LDVTIP	Kit # 20014317
43LDVTRP/EP	Kit # 10008240

Optional Accessories

Fan Kits

FK24 Fan Assembly

This auxiliary fan system increases the efficiency of the circulation of the heating air.

The FK24 fan kit allows variable speed control of the circulation fan and also incorporates a heat sensor in the circuit.

Specifications

115 Volt / 60Hz / 56 Watts

Maintenance

The fan itself does not require regular maintenance, however periodic cleaning of the fan and the surrounding area is required.

Check the area under the control door (lower louvre assembly) and in front of the fan and wipe or vacuum this area at least once a month during the operating season.

Installation

The fan assembly and other components are supplied fully wired eliminating the need for a licensed electrician to carry out the installation.

If hard wiring the fan using Method B (following), we strongly recommend the use of a licensed electrician.

1. Open the lower louvre assembly. Maneuver the fan & bracket assembly around the gas valve and lines to locate the unit onto the screw studs on the back of the fireplace.
2. Install the thermal sensor under the bottom of the of the firebox, locating it over the two 10 mm studs and secure it with nuts.
3. Locate the fan speed control unit. This can be fitted behind the lower louvre assembly as in Figure 52 or located remotely in a conveniently located wall mounted electrical box. Remote location of the speed control will require suitable extension of the component wiring.
4. The power supply may be connected in two ways:

   Method A

   Route the 6' lead fitted to the unit to a conveniently located wall socket.

   Method B (Using EB-1 Receptacle Box)

   The EB-1 receptacle box (Pt. # ZA1200) may be hard wired into the house supply. The fan lead is then plugged into the EB-1 box. For instruction on wiring the EB-1 Electrical Junction Box see the earlier chapter in the Installation section of this manual.

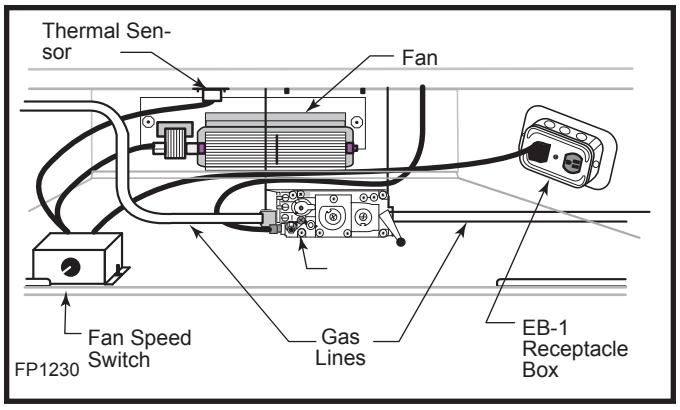


Fig. 52 FK24 fan placement.

FK12

This auxiliary fan system increases the efficiency of the circulation of the heating air.

The FK12 Fan Assembly is a fixed speed fan system and does not allow for variable speed control. It does not use the speed control unit or the heat sensor used in the FK24 Kit.

Specifications

115 Volts / 60 Hz / 56 Watts.

Maintenance

The fan itself does not require regular maintenance, however periodic cleaning of the fan and the surrounding area is required.

Check the area under the control door (lower louvre assembly) and in front of the fan and wipe or vacuum this area at least once a month during the operating season.

Installation

The fan assembly is supplied fully wired eliminating the need for a licensed electrician to carry out the installation.

1. Open the lower Louvre assembly. Maneuver the fan & bracket assembly around the gas valve and lines to locate the unit against the back wall of the appliance,resting on the base.
2. With the protective cover removed from the self-adhesive 'Velcro' strips apply mild pressure to the fan & bracket unit to secure the strips to the metal panels. No further securing is required.
3. Power to the fan can be supplied by plugging the supplied lead into a conveniently located wall socket or by using a hard-wired EB-1 connector box.

Wiring Instructions

The fireplace, when installed, must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current CSA C22.1 Canadian Electric Code.

For USA installations follow the local codes and the national electrical code ANSI/NFPA No. 70.

Should this fan require servicing or repair the power supply must be disconnected. For rewiring of any replacement parts refer to Figure 53.

Any electrical re-wiring of this fan must be done by a licensed electrician.

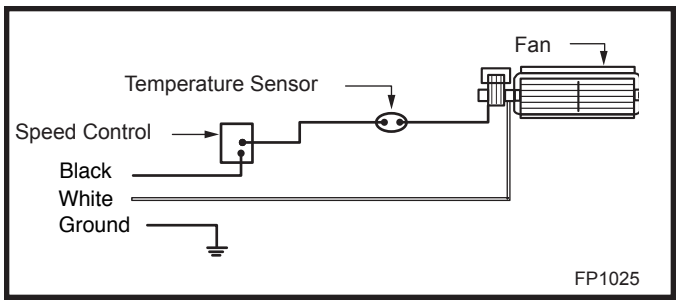


Fig. 53 FK24 fan wiring.

Ceramic Refractory Panels

Ceramic refractory panels are available for the LDV series appliances

		Kit Model and Finish		
Unit	**Sandstone**	**Red**	**Black**	**Grey**
33LDVT	33LDVTCR			
36LDVT	GAHC3J0	GAFC3J0	GABC3J0	GAGC3J0
39LDVT	39LDVCR			
43LDVT	43LDVCR			

Take care when handling the refractory panels as they are fragile until held in place and supported.

Installation, refer to Figures 54 & 55

1. Remove the front window frame assembly.
2. Remove the logs.
3. Place the rear refractory panel in place. Locate the lower edge of the panel in the ledge formed by the top of the rear log support bracket.
4. Slide the side refractory panels into place to hold the rear panel secure. Repeat the procedure on the other side.
5. Replace the logs and window frame assembly.

For aesthetic purposes we recommend aligning the horizontal mortar lines.

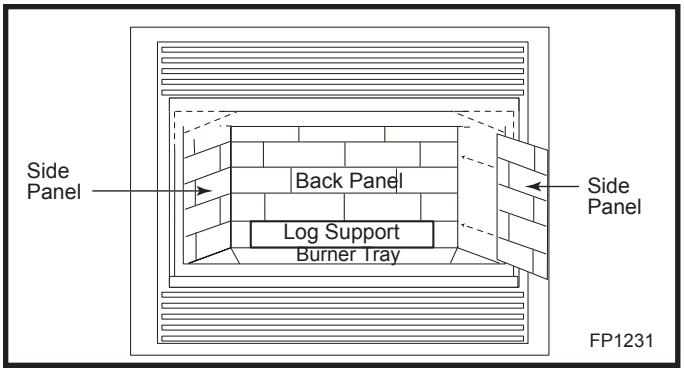


Fig. 54 Ceramic panel installation.

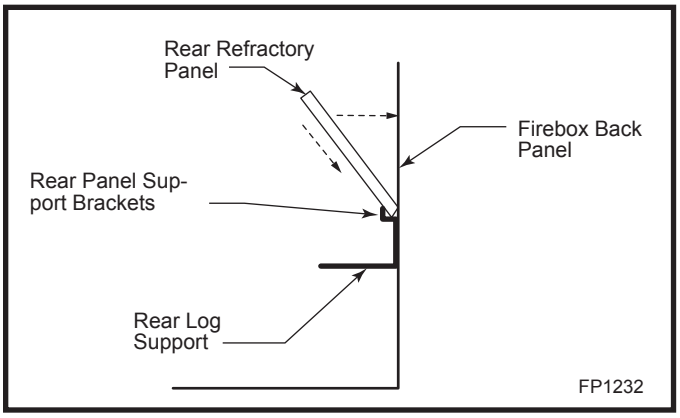


Fig. 55 Rear refractory panel installation.

Remote Controls

Optional remote control units are available to control different functions of the appliances

Model	**Function/s Controlled**
RCI	ON/OFF
RC2	ON/OFF and Temperature.
IMTFK	Wall mounted thermostat control

Optional Trim Kits

Louvre Accent Trim

Appliance Model	Main Louvre Kit	Additional Louvre
Polished Brass		
36LDVT	36DVLMP	36DVLAP
39LDVT	39DVLMP	39DVLAP
Rustic Bronze		
33LDVT	33DVLMR	33DVLAR
36LDVT	36DVLMR	36DVLAR
Pewter		
33LDVT	33DVLMS	33DVLAS
36LDVT	36DVLMS	36DVLAS
39LDVT	39DVLMS	39DVLAS
43LDVT	43DVLMS	43DVLAS

Regular Trim Kit

Appliance Model	Trim Kit	
33LDVT	33DVRRKS	Pewter
33LDVT	33DVRTKR	Rustic Bronze

Adjustable Regular Trim Kit

Appliance Model	Trim Kit	
36LDVT	ADVRRKS	Pewter
36LDVT	ADVRTKR	Rustic Bronze
39LDVT	ADVRRKS	Pewter
39LDVT	ADVRTKR	Rustic Bronze

Medium Trim Kit

Appliance Model	Trim Kit	
33LDVT	33DVMTKS	Pewter
33LDVT	33DVMTKB	Black

Adjustable Medium Trim Kit

Appliance Model	Trim Kit	
36LDVT	ADVMTKP	Polished Brass
36LDVT	ADVMTKS	Pewter
36LDVT	ADVMTKB	Black
39LDVT	ADVMTKP	Polished Brass
39LDVT	ADVMTKS	Pewter
39LDVT	ADVMTKB	Black

Screen Door Kit

Appliance Model	Kit Model	
33LDVT	33DVSDKS	Pewter
36LDVT	36DVSDKS	Pewter
33LDVT	33DVSDKB	Black
36LDVT	36DVSDKB	Black
39LDVT	39DVSDKB	Black
36LDVT	36DVSDKR	Rustic Bronze

Filigree Louvre Kit

Appliance Model	Kit Model	
33LDVT	33DVFKB	Black
36LDVT	36DVFKB	Black
36LDVT	36DVFKS	Pewter
36LDVT	36DVFKR	Rustic Bronze

Arch/Square Face Kit

for the 36LDVT

Romanesque - Arch		
	36DVARFKB	Black
	36DVARFKR	Rustic Bronze
	36DVARFKS	Pewter
Romanesque - Square		
	36DVSRFKB	Black
	36DVSRFKR	Rustic Bronze
	36DVSRFKS	Pewter
Marquette - Arch		
	36DVAMTKB	Black
	36DVAMTKR	Rustic Bronze
	36DVAMTKS	Pewter
Marquette - Square		
	36DVSMTKB	Black
	36DVSMTKR	Rustic Bronze
	36DVSMTKS	Pewter

LIMITED LIFETIME WARRANTY

Lifetime Warranty

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, Heat Exchanger, Grate and Stainless Steel Burners.

Five Year Warranty

The following components are warranted for five (5) years to the original owner, subject to proof of purchase: Ceramic Fiber Logs.

Basic Warranty

Vermont Castings Group warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of two (2) years from date of installation. After installation, if any of the components manufactured by Vermont Castings Group in the appliance are found to be defective in materials or workmanship, Vermont Castings Group will, at its option, replace or repair the defective components at no charge to the original owner. Vermont Castings Group will also pay for reasonable labor costs incurred in replacing or repairing such components for a period of two (2) years from date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Limited Lifetime Warranty will be void if the appliance is not installed by a qualified installer in accordance with the installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damage by accident, neglect, misuse, abuse, alterations, negligence of others, including the installation thereof by unqualified installer, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability of fitness for purpose and of all other obligations or liabilities. Vermont Castings Group does not assume for it any other obligations or liabilities in connection with sale or use of the appliance. In states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damage, those limitations of exclusions may not apply to you. You may also have additional rights not covered in the Limited Lifetime Warranty.

Vermont Castings Group reserves the right to investigate any and all claims against the Limited Lifetime Warranty and decide upon method of settlement.

For information about this warranty, contact:

Technical Services
Vermont Castings Group
149 Cleveland Drive
Paris. KY 40361

Canada

ENERGUIDE

Look for the EnerGuide Gas Fireplace Energy Efficiency Rating in this brochure

Based on CSA P.4.1-09

Efficiency Ratings

Model	EnerGuide Ratings Fireplace Efficiency (%)	Steady State (%)		D.O.E. (AFUE%)
		Fan-OFF	Fan-ON	
33LDVTRN	56.0	77	78	58
33LDVTRP	56.0	78	79	58
33LDVTEN	63.3	77	78	58
33LDVTEP	63.3	78	79	58
33LDVTIN	63.3	77	78	58
33LDVTIP	63.3	78	79	58
36LDVTRN	55.0	78	79	58
36LDVTRP	55.0	79	80	58
36LDVTEN	60.6	78	79	58
36LDVTEP	60.6	79	80	58
36LDVTIN	60.6	78	79	58
36LDVTIP	60.6	79	80	58
39LDVTRN	51.4	76	77	63
39LDVTRP	51.4	77	78	63
39LDVTEN	55.4	76	77	63
39LDVTEP	55.4	77	78	63
39LDVTIN	55.4	76	77	63
39LDVTIP	55.4	77	78	63
43LDVTRN	55.7	76	77	63
43LDVTRP	55.7	77	78	63
43LDVTEN	59.8	76	77	63
43LDVTEP	59.8	77	78	63

NATIONAL FIREPLACE INSTITUTE® NFI CERTIFIED www.nficertified.org

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

Vermont Castings Group
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www.vermontcastingsgroup.com